



## TEST REPORT

#### For

## SMART PAGER

Model: CF101W (other models see page 2)

Prepared for: Shenzhen CIGNA Safety Technology Co., LTD

4/F, Building 6, Longyingfa Industrial Park, Dawo Second Road, Pingshan

District, Shenzhen 518000, China (Peoples Republic Of)

Prepared by: RED Laboratories Inc.

Room 101, Building A, Zhengtailai Hi-Tech Innovation Park, Yintian Creative Park, Yantian Community, Xixiang Subdistrict, Bao'an District, Shenzhen,

Guangdong, China

TEL: +86-+86-0755-23080724 FAX: +86-+86-0755-23080724

Report Number: RED241217116003ED-AM-A

Date of Test: Dec. 09, 2024 to Dec. 16, 2024

Date of Issue: Dec. 17, 2024

Tested By:

Reviewed By:

Approved Resident Res

The results detailed in this test report relate only to the specific sample(s) tested. This report is not to be reproduced except in full, without written approval from RED Laboratories Inc.





### TEST REPORT EN62368

# Audio/video, information and communication technology equipment Part 1: Safety requirements

Report Number...... RED241121041099ED-AMR-A

Date of issue....... Dec. 17, 2024

Total number of pages....... 74 pages

Name of Testing Laboratory RED Laboratories Inc.

Yintian Creative Park, Yantian Community, Xixiang Subdistrict,

Bao'an District, Shenzhen, Guangdong, China

Applicant's name....... Shenzhen CIGNA Safety Technology Co., LTD

Address...... 4 / F, Building 6, Longyingfa Industrial Park, Dawo Second Road,

Pingshan District, Shenzhen 518000, China (Peoples Republic Of)

Test specification:

TRF: IEC/EN62368-1-2018-V2

Standard EN 62368-1:2020+C161:2020

Non-standard test method....... N/A

Test item description...... SMART PAGER

Trade Mark(s).....: N/A

Manufacturer...... | Shenzhen CIGNA Safety Technology Co., LTD

4 / F, Building 6, Longyingfa Industrial Park, Dawo Second Road, Pingshan District, Shenzhen 518000, China (Peoples Republic Of)

Effective Date: 2024-06-21

Model/Type reference......: CF101W, AW301, AW201, A600W, SW102, SW100, CS62W,

CT20W, CT60W, CT50W, AS90W, AS91W, C30W, AS71,

AW401S, CT10WR

Ratings.....: DC5V 1A





Page 3 of 74

#### List of Attachments (including a total number of pages in each attachment):

- Attachment 1 National differences (20 pages)
- Attachment 2 Photo documentation (3 pages)

#### Summary of testing:

#### Tests performed (name of test and test clause):

All applicable tests as described in Test Case and Measurement Sections were performed.

#### **Testing location:**

RED Laboratories Inc.

Room 101, Building A, Zhengtailai Hi-Tech Innovation Park, Yintian Creative Park, Yantian Community, Xixiang Subdistrict, Bao'an District, Shenzhen, Guangdong, China

#### Summary of compliance with National Differences (List of countries addressed):

EU group differences

For National Differences see attachment 1 of this test report.

☐ The product fulfils the requirements of EN 62368-1:2020+C161:2020

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#### Copy of marking plate:

The artwork below may be only a draft. The use of certification marks on a product must be authorized by the respective NCBs that own these marks.

**Product: SMART PAGER** 

Mode: CF101W Rating: DC5V 1A

Manufacturer: Shenzhen CIGNA Safety Technology

Co., LTD

**Manufacturer Address:** 

4 / F, Building 6, Longyingfa Industrial Park, Dawo Second Road, Pingshan District, Shenzhen 518000, China (Peoples

Republic Of)

Ages: 3 years and above





Warning. Not suitable for children under 3 years old. Small parts. Choking hazard.

Made in China

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## RED Laboratories Inc. Page 5 of 74

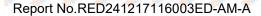
Report No.RED241217116003ED-AM-A

Test item particulars:	
Product group:	
Classification of use by:	☐ Ordinary person ☐ Children likely present ☐ Instructed person
THE THE SEE AND THE THE THE SEE AND THE	Skilled person of of of of of of of
Supply connection:	☐ AC mains ☐ DC mains
	not mains connected:
Supply toloropes	□ +10%/-10%
Supply tolerance ::	+20%/-15%
	□+
Ja. Ja. a. Ja. Ja. Ja. Ja. a. Ja. Ja.	None     Non
Supply connection – type	pluggable equipment type A - / / /
70 AND 30 AND 70 AND 70 AND 30 AND 70	non-detachable supply cord appliance coupler
THE THE SEP SEP SEP SEP SEP SEP SEP SEP	direct plug-in A A A A
	☐ pluggable equipment type B -
450 450 50 450 450 450 450 50 150 450 450	non-detachable supply cord
	appliance coupler and a second
all	□ permanent connection □ mating connector other: DC supply source
Considered current rating of protective	☐ 13A for UK, 20A for US and CA, 16A for others;
device	Location: building equipment
	⊠ N/A
Equipment mobility	
all all all all all all all all all	☐ direct plug-in ☐ stationary ☐ for building-in
	☐ wall/ceiling-mounted ☐ SRME/rack-mounted
	other:
Overvoltage category (OVC):	☐ OVC I ☐ OVC II ☐ OVC III ☐ OVC IV ☐ other: DC supply source
Class of agricument	☐ Class II ☐ Class III ☐ Class III ☐ ☐ Class III ☐ ☐ Class III ☐ ☐ ☐ ☐ ☐ ☐ ☐ ☐ ☐ ☐ ☐ ☐ ☐ ☐ ☐ ☐ ☐
Class of equipment	□ Not classified □
Special installation location	N/A
	□ outdoor location □
Pollution degree (PD):	□ PD 1
Manufacturer's specified T <sub>ma</sub> :	25°C Outdoor: minimum °°C °C
IP protection class	NIPXO P A P A A A A A
Power systems	TIN TITE TITE OF THE STATE OF T
	Not AC mains
Altitude during operation (m):	☐ 2000 m or less ⊠ 5000 m
Altitude of test laboratory (m):	≥ 2000 m or less
Mass of equipment (kg)	
	Approx. 37.5g

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Page 6 of 74

- test case does not apply to the test object:	N/A											
- test object does meet the requirement::	P (P	ass)										
- test object does not meet the requirement:	F (Fa	ail) 🥙										
Testing:	PED	PER	DEL	RED	PER	PED	PED	DEED!	PED	PED	RED	
Date of receipt of test item:	Dec.	. 09,	2024									
Date (s) of performance of tests	Dec.	. 09,	2024	to De	ec. 16	, 2024	l OFFI	DED.	OED.	OED.	OED.	
General remarks:	PER	PEL	DEC.	PER	PER	PER	PER	DEL	PER	PER	PER	
"(See Enclosure #)" refers to additional informatio	n app	ende	ed to	the re	port.	OED.	, ED	DED.	OED.	, ED	, ED	
"(See appended table)" refers to a table appended	to the	repo	ort.									
Throughout this report a ☐ comma / ☒ point	ia											
	is us	ed as	s the	aecii	mai s	epara	ator.					
When differences exist; they shall be identified	72	72"	20	12"	150	120	150	n se	ction	PED.	PED.	
When differences exist; they shall be identified	in the	e Ge	nera	prod	uct in	120	150	n se	ction	PED PED	PED.	
de de de de de de e de de	in the	e Ge	nera	prod	uct in	120	150	n se	ction	PER PER	PED	
When differences exist; they shall be identified  Name and address of factory (ies):	Sam	e Ge	nera	prod	uct in	120	150	n se	ction	PER PER		
When differences exist; they shall be identified	Sam	e Ge	nera	prod	uct in	120	150	n se	ction	POLICE POLICE		
When differences exist; they shall be identified  Name and address of factory (ies):	Sam	e Ge	nera	prod	uct in	120	150	n sec	ction			
When differences exist; they shall be identified  Name and address of factory (ies):  General product information and other remark	Sam	e Ge	nera	prod	uct in	120	150	n ser	ction			



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OVERVIEW OF ENERGY SOL	JRCES AND SAFEGUARDS			
Clause	Possible Hazard			
5	Electrically-caused injury			
Class and Energy Source	Body Part		Safeguards	
(e.g. ES3: Primary circuit)	(e.g. Ordinary)	В	S	R
ES1: All the circuit	Ordinary O O	N/A	N/A	N/A
6	Electrically-caused fire			
Class and Energy Source	Material part		Safeguards	
(e.g. PS2: 100 Watt circuit)	(e.g. Printed board)	В	1 <sup>st</sup> S	2 <sup>nd</sup> S
PS2 circuit: All the circuit	Ordinary A A	<b>√N/A</b> √ <b>√</b>	N/A P	
7	Injury caused by hazardous	substances		
Class and Energy Source	Body Part		Safeguards	
(e.g. Ozone)	(e.g., Skilled)	В	S	R
N/A	N/A	N/A	N/A	N/A
8	Mechanically-caused injury			
Class and Energy Source	Body Part		Safeguards	
(e.g. MS3: Plastic fan blades)	(e.g. Ordinary)	В	S	R
MS1: Edges and corners of enclosure	Ordinary The Part of the Part	N/A N/A	N/A	N/A <sup>P</sup>
MS1: Equipment mass	Ordinary A A	N/A	N/A	N/A
9	Thermal burn			
Class and Energy Source	Body Part		Safeguards	
(e.g. TS1: Keyboard caps)	(e.g., Ordinary)	В	S	R
TS3:Internal circuits 🛷 🛷	Ordinary 🛷 🛷		N/A	√N/A √
N/A° A A A	N/A	N/A	N/A	N/A
10	Radiation			
Class and Energy Source	Body Part		Safeguards	
(e.g. RS1: PMP sound output)	(e.g., Ordinary)	В	S	R
RS1: indicator light	Ordinary	N/A	N/A	N/A
Supplementary Information:	Ter an fan fan fan fan	i i i	Ten de de	i te te

"B" – Basic Safeguard; "S" – Supplementary Safeguard; "R" – Reinforced Safeguard

## **ENERGY SOURCE DIAGRAM**

Optional. Manufacturers are to provide the energy sources diagram identify declared energy sources and identifying the demarcations are between power sources. Recommend diagram be provided included in power supply and multipart systems.

Insert diagram below. Example diagram designs are; Block diagrams; image(s) with layered data; mechanical

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Page 8 of 74

Report No.RED241217116003ED-AM-A

drawii	ngs																			
P	P	5	P	P	P	P	2	P	P	P	P	2	P	P	P	P	5	P	P	P
PED						ES		PS		⊠ MS	S PER		TS		RS					
RED																				

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RED Lab	poratories Inc.	Page 9 of 74 Report EN 62368-1	No.RED241217116003ED-AM-A
Clause	Requirement + Test	P APP APP APP APP APP	Result - Remark Verdict

4	GENERAL REQUIREMENTS	₽ <sup>®</sup>
4.101	Acceptance of materials, components and subassemblies  See appended table 4.1.2	PP PP
1.1.2	Use of components  Components which are certified to IEC and/or national standards are used correctly	P P
	within their ratings. Components not covered by	
	IEC standards are tested under the conditions present in the equipment	
1.1.3	Equipment design and construction	EP PEP
1.1.4	Specified ambient temperature for outdoor use (°C) Indoor used.	N/A
1.7.5	Constructions and components not specifically covered	N/A
l.1.8 🛷	Liquids and liquid filled components (LFC)	N/A
1.115	Markings and instructions (See Annex F)	PED PED
.4.3	Safeguard robustness Only ES1 circuit within the product.	PER PER
.4.3.1	General of all all all all all all all all all al	√ N/A
.4.3.2	Steady force tests and so and	PEP PEP
.4.3.3	Drop tests of	PER PER
1.4.3.4	Impact tests	N/A
.4.3.5	Internal accessible safeguard tests	N/A
.4.3.6	Glass impact tests ** ** ** ** ** ** ** ** ** ** ** ** **	N/A
1.4.3.7	Glass fixation tests of the first of the fir	₩ N/A
PED PED	Glass impact test (1J)	₩ N/A
DED DED	Push/pull test (10 N)	N/A
.4.3.8	Thermoplastic material tests (See Annex T.8)	N/A
.4.3.9	Air comprising a safeguard	N/A <sup>™</sup>
.4.3.10	Accessibility, glass, safeguard effectiveness	N/A
1.4.4	Displacement of a safeguard by an insulating liquid	N/A
1.4.5	Safety interlocks	N/A
1.5	Explosion	P
1.5.1	General Office of the second o	P
1.5.2	No explosion during normal/abnormal operating condition (See Clause B.2, B.3)	P
न्याण न्याण	No harm by explosion during single fault conditions (See Clause B.4)	P

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RED La	poratories Inc. Page 10 of 74 Report No.RED241217116003E	ED-AM-A
Clause	Requirement + Test	Verdict
4.6	Fixing of conductors	N/A
	Fix conductors not to defeat a safeguard	N/A
Part Part	Compliance is checked by test:	N/A
4.7	Equipment for direct insertion into mains socket-outlets	N/A
4.7.2	Mains plug part complies with relevant standard: Approved direct plug-in equipment.	N/A
4.7.3	Torque (Nm)	N/A
4.8	Equipment containing coin/button cell batteries	N/A
4.8.1	General No coin/button cell batteries used	N/A
4.8.2	Instructional safeguard:	N/A
4.8.3	Battery compartment door/cover construction	N/A
PER PER	Open torque test    Open t	N/A
4.8.4.2	Stress relief test 🛷 🜮 🛷 🛷 🛷 🛷 🛷 🛷	N/A
4.8.4.3	Battery replacement test	N/A
4.8.4.4	Drop test	N/A
4.8.4.5	Impact test	N/A
4.8.4.6	Crush test	N/A
4.8.5	Compliance O O O O O O O O O	N/A
0 0	30N force test with test probe	N/A
A A	20N force test with test hook	N/A
4.9	Likelihood of fire or shock due to entry of conductive object	N/A
4.10	Component requirements of the second of the	N/A
4.10.1	Disconnect Device	N/A
4.10.2	Switches and relays	N/A

5	ELECTRICALLY-CAUSED INJURY
5.2	Classification and limits of electrical energy sources
5.2.2	ES1, ES2 and ES3 limits N/A
5.2.2.2	Steady-state voltage and current limits:
5.2.2.3	Capacitance limits
5.2.2.4	Single pulse limits
5.2.2.5	Limits for repetitive pulses
5.2.2.6	Ringing signals A A A A A A A A A A A A A A A A A A A
5.2.2.7	Audio signals N/A
5.3	Protection against electrical energy sources N/A

Subdistrict, Bao'an District, Shenzhen, Guangdong, China



	poratories Inc. Page 11 of 74 Report EN 62368-1	No.RED241217116003EI	J-AIVI-A
Clause	Requirement + Test	Result - Remark	Verdic
5.3.1	General Requirements for accessible parts to ordinary, instructed and skilled persons	All the circuit in the product is ES1 circuit.	N/A
5. <mark>3</mark> .1 a)	Accessible ES1/ES2 derived from ES2/ES3 circuits	THE THE THE THE THE THE	N/A
5.3.1 b)	Skilled persons not unintentional contact ES3 bare conductors		N/A
5.3.2.1	Accessibility to electrical energy sources and safeguards		N/A
EÜ EÜ	Accessibility to outdoor equipment bare parts		N/A
5.3.2.2	Contact requirements	Jan Jan Jan Jan Jan	N/A
PIETE PER	Test with test probe from Annex V	APP APP APP APP APP APP APP	-
5.3.2.2 a)	Air gap – electric strength test potential (V):	THE THE THE THE THE THE THE	₩ N/A
5. <mark>3</mark> .2.2 b)	Air gap – distance (mm)	THE THE THE THE THE THE	₩ N/A
5.3.2.3	Compliance A A A A A	THE OF THE SECOND	N/A
5.3.2.4	Terminals for connecting stripped wire		N/A
5.40	Insulation materials and requirements	THE OFF THE THE OFF THE	PEP PEP
5.4.1.2	Properties of insulating material		N/A
5.4.1.3	Material is non-hygroscopic	0 0 0 0 0	N/A
5.4.1.4	Maximum operating temperature for insulating materials	(See appended table 5.4.1.4, 6.3.2, 9.0, B.2.6)	P
5.4.1.5	Pollution degrees	200 000 000 000 000 000	REP.
5.4.1.5.2	Test for pollution degree 1 environment and for an insulating compound		N/A
5.4.1.5.3	Thermal cycling test		N/A
- 4	Insulation in transformers with varying dimensions		
0.4.1.6	या व्या व्या व्या व्या या व्या व्या व्या	all all all all all all	N/A
101/1 101/1	Insulation in circuits generating starting pulses		N/A N/A
5.4.1.7	Insulation in circuits generating starting pulses  Determination of working voltage		On Six
5.4.1.7 5.4.1.8			N/A
5.4.1.7 5.4.1.8 5.4.1.9	Determination of working voltage:		N/A N/A
5.4.1.7 5.4.1.8 5.4.1.9 5.4.1.10	Determination of working voltage:  Insulating surfaces  Thermoplastic parts on which conductive metallic		N/A N/A N/A
5.4.1.7 5.4.1.8 5.4.1.9 5.4.1.10	Determination of working voltage:  Insulating surfaces  Thermoplastic parts on which conductive metallic parts are directly mounted		N/A N/A N/A
5.4.1.7 5.4.1.8 5.4.1.9 5.4.1.10 5.4.1.10.2 5.4.1.10.3	Determination of working voltage:  Insulating surfaces  Thermoplastic parts on which conductive metallic parts are directly mounted  Vicat test:		N/A N/A N/A N/A
5.4.1.7 5.4.1.8 5.4.1.9 5.4.1.10 5.4.1.10.2 5.4.1.10.3 5.4.2	Determination of working voltage:  Insulating surfaces  Thermoplastic parts on which conductive metallic parts are directly mounted  Vicat test:  Ball pressure test:		N/A N/A N/A N/A N/A
5.4.1.7 5.4.1.8 5.4.1.9 5.4.1.10 5.4.1.10.2 5.4.1.10.3	Determination of working voltage: Insulating surfaces Thermoplastic parts on which conductive metallic parts are directly mounted Vicat test: Ball pressure test: Clearances		N/A N/A N/A N/A N/A N/A
5.4.1.7 5.4.1.8 5.4.1.9 5.4.1.10 5.4.1.10.2 5.4.1.10.3 5.4.2	Determination of working voltage:  Insulating surfaces  Thermoplastic parts on which conductive metallic parts are directly mounted  Vicat test:  Ball pressure test:  Clearances  General requirements  Clearances in circuits connected to AC Mains,		N/A N/A N/A N/A N/A N/A N/A N/A
5.4.1.6 5.4.1.7 5.4.1.8 5.4.1.9 5.4.1.10 5.4.1.10.2 5.4.1.10.3 5.4.2 5.4.2.1	Determination of working voltage:  Insulating surfaces  Thermoplastic parts on which conductive metallic parts are directly mounted  Vicat test:  Ball pressure test:  Clearances  General requirements  Clearances in circuits connected to AC Mains, Alternative method		N/A N/A N/A N/A N/A N/A N/A N/A N/A

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RED Lab	poratories Inc. Page 12 of 74 Report EN 62368-1		No.I	RED2	4121	711	6003EC	-AM-A
Clause	Requirement + Test	Resi	ılt - F	Remai	·k🎨	DED	PED 7	Verdic
5.4.2.3.2.2	a.c. mains transient voltage:	P	PE	P	P	O.	Part of	<u> </u>
5.4.2.3.2.3	d.c. mains transient voltage:	P. C.	P	P	P	21/2	72 7	
5.4.2.3.2.4	External circuit transient voltage	P	P	P	P	2	7	_
5.4.2.3.2.5	Transient voltage determined by measurement:	P	PER	PER	PRO	2	Part of	
5.4.2.4	Determining the adequacy of a clearance using an electric strength test:	PER	PED	PER	PED	DEL!	PER T	N/A
5.4.2.5	Multiplication factors for clearances and test voltages	PED	PER	PIEL	PED	DED!	PIEL T	N/A
5.4.2.6	Clearance measurement	CED.	OED.	OED.	, de	EQ.	CED .	
5.4.3	Creepage distances	QV.	QV.	QV.	A)	20°	- <del>Q</del> V	N/A
5.4.3.1	General	P	7	P. C.	7	· ·	72 <sup>1</sup> 1	N/A
5.4.3.3	Material group:	IIIb	P	P	R	200	Part 4	- OV
5.4.3.4	Creepage distances measurement:	P	P	P	P	2	PART T	N/A
5.4.4	Solid insulation of the solid	PER	PER	PER	PER	DER	PER T	N/A
5.4.4.1	General requirements	P	P	P	P	2	PART P	N/A
5.4.4.2	Minimum distance through insulation	PER	PER	PER	PER	DER	PER T	N/A
5.4.4.3	Insulating compound forming solid insulation	PER	PED	PED	PER	DEED	PED 7	✓ N/A
5.4.4.4	Solid insulation in semiconductor devices	PER	PED	PED	PED	DER	PED T	√ N/A
5.4.4.5	Insulating compound forming cemented joints	DED.	PED.	<b>PED</b>	<b>DED</b>	DED.	OED A	Ø N/A
5.4.4.6	Thin sheet material	OED.	DED.	OED.	OED.	ED	agi a	ø N/A
5.4.4.6.1	General requirements	-CC	-CO		-60	-60	- GÖ	N/A
5.4.4.6.2	Separable thin sheet material	72	720	72	720	200	, ,	N/A
PER PER	Number of layers (pcs)	PER	PER	PED	PED	DEL	PED T	✓ N/A
5.4.4.6.3	Non-separable thin sheet material	No s the E		nsula	tion u	used	within	N/A     N/A
Pill Pill	Number of layers (pcs)	P	P	P	P	20	Por T	N/A
5.4.4.6.4	Standard test procedure for non-separable thin sheet material	PER DE	PARTIE TO SERVICE	Parti.	PELL.	aren'	PER T	N/A
5.4.4.6.5	Mandrel test	PER	PED	PED	PED	DED.	PED T	
5.4.4.7	Solid insulation in wound components	<b>PED</b>	PED.	<b>PED</b>	PED	DED.	Partie 4	Ø N/A
5.4.4.9	Solid insulation at frequencies >30 kHz, $E_P$ , $K_R$ , $d$ , $V_{PW}$ (V)	PED	PED	PED	RED	DED	RED T	N/A
PER PER	Alternative by electric strength test, tested voltage (V), K <sub>R</sub>	PER.	PER.	PIED.	PER.	DELL.	RED A	N/A
5.4.5	Antenna terminal insulation	eQ.	ED.	CED!	CED.	ED		N/A
5.4.5.1	General	THE SECTION AND ADDRESS OF THE PERSON ADDRESS OF THE PERSON AND ADDRESS OF THE PERSON ADDRESS OF THE PERSON ADDRESS OF THE PERSON ADDRESS OF THE PERSON AND ADDRESS OF THE PERSON ADDRESS OF THE PERSON	Per JO	Per	R	- C.	Par T	N/A
5.4.5.2	Voltage surge test	P	12	P	P	21	P. T	N/A

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RED Lat	poratories Inc. Page 13 of 74 Report EN 62368-1		No.	RED2	24121	711	6003E	D-AM-A
Clause	Requirement + Test	Res	ult - F	Remai	rk	DEP	PED	Verdic
5.4.5.3	Insulation resistance (M $\Omega$ )	PER	REP.	P. C.	P. C.		P.C.	N/A
PO PO	Electric strength test	P	P	R	R	20	P	N/A
5.4.6	Insulation of internal wire as part of supplementary safeguard	PED	PED.	PIP.	Parti.	DED.	PER !	N/A
5.4.7	Tests for semiconductor components and for cemented joints	PED	RED	RED	RED	DEL.	PER	N/A
5.4.8	Humidity conditioning * * * * * * * * * * * * * * * * * * *	PER	PER	PER	PER	2	PER	N/A
PER PER	Relative humidity (%), temperature (°C), duration (h):	PER	PER	PED	PED	DEL	PER	_
5.4.9	Electric strength test	PER	PER	PER	PER	2	PER	N/A
5.4.9.1	Test procedure for type test of solid insulation:	PER	PER	PED	PER	DEL	PED	₩ N/A
5.4.9.2	Test procedure for routine test	PED	PED	PED	PED	DED	RED	N/A
5.4.10	Safeguards against transient voltages from external circuits	No s	such	extern	nal cir	cuits	RED	N/A
5.4.10.1	Parts and circuits separated from external circuits	P	Par Ci	Paris	P	D.	P	N/A
5.4.10.2	Test methods	TO.	122m	Par Ci.	P	200	Par .	N/A
5.4.10.2.1	General	P	P	P	P	2	P	N/A
5.4.10. <b>2</b> .2	Impulse test.	PER	PER	PER	PE	2	REL	N/A
5.4.10.2.3	Steady-state test	PER	PER	PED	PEL	DEL	PED	₩ N/A
5. <mark>4.1</mark> 0.3	Verification for insulation breakdown for impulse test	PED	PED.	RED	PED	DED.	PER	N/A
5.4.11	Separation between external circuits and earth	P	P. C	TO CO	P. C.	20	Par d	N/A
5.4.11.1	Exceptions to separation between external circuits and earth	P	P	P	P	200	P	N/A
5.4.11.2	Requirements	AN O	Par Ci	Par Ci	Par Si	2000	P. O	N/A
Parisi Parisi	SPDs bridge separation between external circuit and earth	PED.	PILL)	RED!	Parti.	alili.	Paris .	N/A
OFFIC OFFI	Rated operating voltage U <sub>op</sub> (V)	OED.	OED.	OFD.	OED.	DED.	OED.	
	Nominal voltage U <sub>peak</sub> (V)	EQ.	EQ.	e E D	EQ.	EQ.	OED.	
DEC DEC	Max increase due to variation ΔU <sub>sp</sub> :	OF D	PER.	PED.	OF!	DE.C.	OF.C.	_
OFF. OFF.	Max increase due to ageing ΔU <sub>sa</sub>	OED!	OED.	AED.	OED!	DED.	OED.	_
5.4.11.3	Test method and compliance	CO.	CED.	- CO	OCD.	EQ.	a di	N/A
5.4.12	Insulating liquid	, Ó.	P <sup>V</sup>	P.O.	, O.	NO.	P.	N/A
5.4.12.1	General requirements	72	72	72	72	2	P	N/A
5.4.12.2	Electric strength of an insulating liquid	P	P	R	P	2	P	N/A
5.4.12.3	Compatibility of an insulating liquid	PER	PER	PER	PER	DEP	PER	N/A
5.4.12.4	Container for insulating liquid	PEL	PEL	PER	PEL	DEL.	PER	₩ N/A
5.5	Components as safeguards	- 00	, Q	0	.00.	ZQ.	D.	N/A

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RED Lal	boratories Inc. Page 14 of 74 Report EN 62368-1	No.RED241217116003EI	D-AM-A
Clause	Requirement + Test	Result - Remark	Verdic
5.5.1	General	Class III equipment	N/A
5.5.2	Capacitors and RC units		N/A
5.5.2.1	General requirement		N/A
5.5.2.2	Safeguards against capacitor discharge after disconnection of a connector		N/A
5.5.3	Transformers A A A A A	0 0 0 0 0 0	N/A
5.5.4	Optocouplers		N/A
5.5.5	Relays		N/A
5.5.6	Resistors A A A A A A	THE THE THE THE THE THE THE	₩ N/A
5.5.7	SPDs OF OF OF OF	all all all all all all	N/A
5.5.8	Insulation between the mains and an external circuit consisting of a coaxial cable		N/A
5.5.9	Safeguards for socket-outlets in outdoor equipment	10 10 10 10 10 10 10 10 10 10 10 10 10 1	N/A
PED PED	RCD rated residual operating current (mA)	aft aft aft aft aft	<del>-</del>
5.6	Protective conductor www www www.	Class III equipment	N/A
5.6.2	Requirement for protective conductors	APP APP APP APP APP APP	N/A
5.6.2.1	General requirements of the second of the se	THE THE PART OF THE PARTY OF	₩ N/A
5.6.2.2	Colour of insulation	all all all all all all	N/A
5.6.3	Requirement for protective earthing conductors		N/A
-00 -00	Protective earthing conductor size (mm²):	0 0 0 0 0 0	_
PET PET	Protective earthing conductor serving as a reinforced safeguard		N/A
PER PER	Protective earthing conductor serving as a double safeguard		N/A
5.6.4	Requirements for protective bonding conductors	per per per per per	N/A
5.6.4.1	Protective bonding conductors	THE THE THE THE THE	N/A
OFFI OFFI	Protective bonding conductor size (mm²):	aft aft aft aft aft aft	_
5.6.4.2	Protective current rating (A)		N/A
5.6.5	Terminals for protective conductors	all all all all all	Ø N/A
5.6.5.1	Terminal size for connecting protective earthing conductors (mm)	AND AND AND AND AND	N/A
	Terminal size for connecting protective bonding conductors (mm)		N/A
5.6.5.2	Corrosion		N/A
5.6.6	Resistance of the protective bonding system	9) 9) 9) 10 10 10 10 10 10 10 10 10 10 10 10 10	N/A
5.6.6.1	Requirements		N/A
5.6.6.2	Test Method.		N/A

Subdistrict, Bao'an District, Shenzhen, Guangdong, China



RED Lab	poratories Inc. Page 15 of 74 Report EN 62368-1	PER	No.F	RED2	4121	711	6003E	D-A	M-A
Clause	Requirement + Test	Resi	ult - F	Remar	k 🎾	DE.C.	PER	PR	/erdict
5.6.6.3	Resistance ( $\Omega$ ) or voltage drop	P	P.O.	P	P	O.	P	P. C.	N/A
5.6.7	Reliable connection of a protective earthing conductor	PER	PER	PED:	PER	DED.	PER	TO EC	N/A
5.6.8	Functional earthing	PED.	PED	<b>PED</b>	PED	DED.	<b>PED</b>	DED.	N/A
OFF. OFF.	Conductor size (mm²)	OFIC.	OFF.	OED.	OFF.	DED.	ard.	OED.	N/A
	Class II with functional earthing marking:	ED.	ED.	, ED	OED)	ED.	e E C	EC.	N/A
00 00	Appliance inlet cl & cr (mm):	Te.	120	Te.	120	CQ.	Te.	10	N/A
5.7	Prospective touch voltage, touch current and pro	tecti	ve co	ondu	ctor	curr	ent	427	N/A
5.7.2	Measuring devices and networks	PER	PED	PED	PED	DED	PED	PER	N/A
5.7.2.1	Measurement of touch current	<b>PER</b>	<b>PED</b>	<b>BED</b>	<b>PED</b>	DEL	QED.	(DEC	N/A
5.7.2.2	Measurement of voltage	ED.	OED.	OED.	OED.	ED	OED.	ED	N/A
5.7.3	Equipment set-up, supply connections and earth connections	PED	PED	RED	PED	DED.	PER	PED	N/A
5.7.4	Unearthed accessible parts.	PED	PED	PED	PED	DER	PED	PER	N/A
5.7.5	Earthed accessible conductive parts	PER	PER	PER	PER	DE	PER	PER	N/A
5.7.6	Requirements when touch current exceeds ES2 limits	PED	PED	PED	PED	DELD.	PED	RED.	N/A
	Protective conductor current (mA):	Par.	P. C.	P.O.	P.O.	Ċ.	TO CO.	T.	N/A
Plant Plant	Instructional Safeguard:	P	R	P	P	20	P. C.	<b>40</b>	N/A
5.7.7	Prospective touch voltage and touch current associated with external circuits	PER PER	PELL.	PART.	PEL	DED.	Partie	PED:	N/A
5.7.7.1	Touch current from coaxial cables	OED.	OED.	OED.	OED.	DED.	agi.	EC	N/A
5.7.7.2	Prospective touch voltage and touch current associated with paired conductor cables	OED.	PED.	PART!	PED.	DED.	OFF.	DEC.	N/A
5.7.8	Summation of touch currents from external circuits	ED.	ED.	OED.	a ED	ED	a ED	ED	N/A
PELL DELL	a) Equipment connected to earthed external circuits, current (mA)	PED	PED	RED	PED	DEED!	PER	PED	N/A
PED PED	b) Equipment connected to unearthed external circuits, current (mA):	PED	PED	PED	PED	afil.	PED	PED:	N/A
5.80	Backfeed safeguard in battery backed up supplie	S	Par C	TO E.C.	PER	DED.	THE C	EÜ	N/A
	Mains terminal ES	CED.	CED.	CED.	OED.	EQ.	CEQ.	ED.	N/A
	Air gap (mm):	P. C.	C.	Paris in the second	P	O.	- Park	78	N/A

6		ELECTRICALLY- CAUSED FIRE			P 1
6.2	Par 1	Classification of PS and PIS	POPE R		P 4
6.2.2	PER I	Power source circuit classifications		ED	Ren 4
C C	CED.	with PS2 output used.	Ç GEÇ	EC.	OED.
6.2.3	3	Classification of potential ignition sources	, ,		N/A

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RED La	boratories Inc. Page 16 of 74 Report EN 62368-1	No.RED241217116003ED	-AM-A
Clause	Requirement + Test	Result - Remark	Verdic
6.2.3.1	Arcing PIS	No Arcing PIS.	N/A
6.2.3.2	Resistive PIS	(See appended table 6.2.2)	P
6.3	Safeguards against fire under normal operating a conditions	nd abnormal operating	P P
6.3.1	No ignition and attainable temperature value less than 90 % defined by ISO 871 or less than 300 °C for unknown materials	(See appended table B.1.5 and B.3, B.4)	Pri Pri
agi agi	Combustible materials outside fire enclosure		Ø N/A
6.4	Safeguards against fire under single fault condition	ons	Р
6.4.1	Safeguard method (**) ** (**) (**) (**) (**) (**)	Method by control of fire spread applied, detail see sub-clauses 6.4.5.	P P
6.4.2	Reduction of the likelihood of ignition under single fault conditions in PS1 circuits		N/A
6.4.3	Reduction of the likelihood of ignition under single fault conditions in PS2 and PS3 circuits	APP APP APP APP APP A	N/A
6.4.3.1	Supplementary safeguards		N/A
6.4.3.2	Single Fault Conditions	200 200 200 200 A	N/A
PER PER	Special conditions for temperature limited by fuse	TOP TOP TOP TOP TOP TO	N/A
6.4.4	Control of fire spread in PS1 circuits	TOP TOP TOP TOP TOP TOP TO	√ N/A
6.4.5	Control of fire spread in PS2 circuits	built-in component	√ N/A
6.4.5.2	Supplementary safeguards		Ø N/A
6.4.6	Control of fire spread in PS3 circuits		N/A
6.4.7	Separation of combustible materials from a PIS	1 1 1 1 1 1	N/A
6.4.7.2	Separation by distance was a way of the separa	THE THE THE THE THE THE THE	✓ N/A
6.4.7.3	Separation by a fire barrier 🧀 🞺 🧀 💞	THE THE THE THE THE THE THE	√A
6.4.8	Fire enclosures and fire barriers	No fire enclosure required by PS2 circuit.	N/A
6.4.8.2	Fire enclosure and fire barrier material properties		N/A
6.4.8.2.1	Requirements for a fire barrier		N/A
6.4.8.2.2	Requirements for a fire enclosure		N/A
6.4.8.3	Constructional requirements for a fire enclosure and a fire barrier		N/A
6.4.8.3.1	Fire enclosure and fire barrier openings		N/A
6.4.8.3.2	Fire barrier dimensions	<u> </u>	N/A
6.4.8.3.3	Top openings and properties		N/A
P P	Openings dimensions (mm):		N/A
6.4.8.3.4	Bottom openings and properties		N/A
60 -00	Openings dimensions (mm)	0 0 0 0 0 0	Ø N/A

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RED La	boratories Inc. Page 17 of 74 Report EN 62368-1	No.RED241217116003EI	D-AM-A
Clause	Requirement + Test	Result - Remark	Verdic
P P	Flammability tests for the bottom of a fire enclosure		N/A
Part Part	Instructional Safeguard		N/A
6.4.8.3.5	Side openings and properties		N/A
PER PER	Openings dimensions (mm)	APP APP APP APP APP APP	N/A
6.4.8.3.6	Integrity of a fire enclosure, condition met: a), b) or c)		N/A
6.4.8.4	Separation of a PIS from a fire enclosure and a fire barrier distance (mm) or flammability rating:	AND AND AND AND AND	N/A
6.4.9	Flammability of insulating liquid	0 0 0 0 0	N/A
6.5	Internal and external wiring		P
6.5.1	General requirements	VW-1 wires used, Which considered to equivalent to IEC/TS 60695-11-21	P P
6.5.2	Requirements for interconnection to building wiring		N/A
6.5.3	Internal wiring size (mm²) for socket-outlets:	THE APP APP APP APP APP	₩ N/A
6.6 <sup>(2)</sup>	Safeguards against fire due to the connection to	additional equipment	₩ N/A
DEL DEL	AP APP APP APP APP APP APP APP APP APP	THE DEED THE DEED THE DEED TO THE	OFF. OFF.
7	INJURY CAUSED BY HAZARDOUS SUBSTANCE	S	N/A
7.2	Reduction of exposure to hazardous substances		N/A
7.3	Ozone exposure		N/A
7.4	Use of personal safeguards or personal protective	ve equipment (PPE)	N/A
P. P.	Personal safeguards and instructions		
7.50	Use of instructional safeguards and instructions	THE OF THE THE THE THE	N/A
OED OED	Instructional safeguard (ISO 7010)		_
7.6	Batteries and their protection circuits	0 0 0 0 0 0	N/A

8	MECHANICALLY-CAUSED INJURY								P
8.2	Mechanical energy source classifications	Ö, ZÖ	P	P	(D)	20.	P	(D)	P
8.3	Safeguards against mechanical energy sources	Q. Q.	TO TO	(Q)	TO SOL	20%	Par di	All A	P
8.4	Safeguards against parts with sharp edges and	corners	3 70	P	P	2	P	(D)	P
8.4.1	Safeguards 🥙 🧖 💆 🧖 🙋 🕷	MS1	PER	PER	PER	2	P	PER	N/A
PER F	Instructional Safeguard	RED	PED	PER	PER	2EP	PER	PER	N/A
8.4.2	Sharp edges or corners of the state of the s	DED.	PED	PED	PED	DED	PED	TO ED	N/A
8.5	Safeguards against moving parts	C RED	PED	PED	PED	DEL	PER	PED	N/A
8.5.1	Fingers, jewellery, clothing, hair, etc., contact with MS2 or MS3 parts	DED.	PED	PER	PED	DED.	PED	PER	N/A

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RED Lab	oratories Inc. Page 18 of 74 Report EN 62368-1		No.I	RED2	4121	711	6003E	D-AM-A
Clause	Requirement + Test	Resi	ult - F	Remai	<b>K</b> P	DEL	REC	Verdic
pili pili	MS2 or MS3 part required to be accessible for the function of the equipment	PED	RED	PER	PED	DED.	RED.	N/A
POLICE POLICE	Moving MS3 parts only accessible to skilled person	PER	RED	PED	PED	DED	PED	N/A
8.5.2	Instructional safeguard	<b>PED</b>	PED.	PED	PED	DED.	PER	N/A
8.5.4	Special categories of equipment containing moving parts	PED	PER	PED	RED	DED	RED	N/A
8.5.4.1	General ( A A A A A A A A A A A A A A A A A A	PER	PE	PELL	PEL	DEL	PEL	N/A
8.5.4.2	Equipment containing work cells with MS3 parts	PED	PED	PED	PED	DEL	PER	N/A <sup>™</sup>
8.5.4.2.1	Protection of persons in the work cell	ED.	, ED	, ED	ED	ED	EC	N/A
8.5.4.2.2	Access protection override	LED.	-co	- CD	-cO	-D	-CC	N/A
8.5.4.2.2.1	Override system	TE CO	72.0	72	TEN.	20	TO SECOND	N/A
3.5.4.2.2.2	Visual indicator	P	P	P	P	2	R	N/A
3.5.4.2.3	Emergency stop system	P	P	P	P	2	P	N/A
	Maximum stopping distance from the point of activation (m)	PER.	PED.	PIED!	PER.	DEL!	PER.	N/A
PER PER	Space between end point and nearest fixed mechanical part (mm):	PED	PED	PIED	PER	DED.	PED	N/A
3.5.4.2.4	Endurance requirements	P	P	P	P	200	<b>P</b>	N/A
ALL ALL	Mechanical system subjected to 100 000 cycles of operation	PEL.	PER DER	PIELS	PELL.	DEL!	PEL.	N/A
agi agi	- Mechanical function check and visual inspection	ED.	ED.	a ED	ED.	ED	EC	N/A
-0, -0	- Cable assembly	- Q	-60	-00	-60	Q.	-60	N/A
3.5.4.3	Equipment having electromechanical device for destruction of media	PED.	PER C	PED.	PED	a ED	PED.	N/A
8.5.4.3.1	Equipment safeguards	ED.	ED.	a ED	ED.	EQ.	ED.	N/A
3.5.4.3.2	Instructional safeguards against moving parts:	THE CO.	C.C.	TE CO	CQ.	CQ.	Part CO	N/A
3.5.4.3.3	Disconnection from the supply	TO.	P	P. O.	72	20°.	Te Ci.	N/A
3.5.4.3.4	Cut type and test force (N)	<b>P</b>	P	P	P	20	P	N/A
3.5.4.3.5	Compliance	P	P	P	P	20	P	N/A
3.5.5	High pressure lamps	Par Ci.	P	Par di	P	20	P	N/A
	Explosion test	P.	P	P	P	2	P	N/A
3.5.5.3	Glass particles dimensions (mm):	P	P	P	P	2	R	N/A
3.6	Stability of equipment ** ** ** ***	PER	PER	PER	PER	DEE	PER	N/A
3.6.1	General of of of of of of	MS1	PED	PED	PED	DEE	PER	N/A
PED PED	Instructional safeguard	PER	PED	PED	PED	DEID.	PER	N/A
3.6.2	Static stability of of of of of	PER	PED	PED	PED	DED	PER	N/A
3.6.2.2	Static stability test	,	1	,	,	Ċ	,	N/A

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RED La	boratories Inc. Page 19 of 74 Report EN 62368-1	No.RED241217116003EI	D-AM-A
Clause	Requirement + Test	Result - Remark	Verdic
8.6.2.3	Downward force test		N/A
8.6.3	Relocation stability		N/A
P P	Wheels diameter (mm):		_
Part Part	Tilt test		N/A
8.6.4	Glass slide test	APP APP APP APP APP APP A	N/A
8.6.5	Horizontal force test	THE THE THE THE THE THE	N/A
8.7	Equipment mounted to wall, ceiling or other struc	ture of of of of of	√ N/A
8.7.1	Mount means type		N/A
8.7.2	Test methods		N/A
P. P.	Test 1, additional downwards force (N):		N/A
	Test 2, number of attachment points and test force		N/A
PER PER	(N)		N/A
	(Nm)		IN/A
8.8	Handles strength		N/A
8.8.1	General Office of the second o		N/A
8.8.2	Handle strength test		N/A
PED PED	Number of handles.	THE THE THE THE THE THE	_
PER PER	Force applied (N)	10 10 10 10 10 10 10 10 10 10 10 10 10 1	DED RED
8.90	Wheels or casters attachment requirements	THE THE THE THE THE THE	N/A
8.9.2	Pull test		N/A
8.10	Carts, stands and similar carriers		N/A
8.10.1	General @ @ @ @ @ @ @ @		N/A
8.10.2	Marking and instructions		N/A
8.10.3	Cart, stand or carrier loading test	AP AP AP AP AP AP	₩ N/A
PED PED	Loading force applied (N)	THE THE THE THE THE THE	N/A
8.10.4	Cart, stand or carrier impact test	OF OF OF OF OF	N/A
8.10.5	Mechanical stability	AP AP AP AP AP AP	Ø N/A
PER PER	Force applied (N)	THE THE THE THE THE THE	DELD PER
8.10.6	Thermoplastic temperature stability		N/A
8.11	Mounting means for slide-rail mounted equipment	t (SRME)	N/A
8.11.1	General		N/A
8.11.2	Requirements for slide rails		N/A
Jan Jan	Instructional Safeguard	10 10 10 10 10 10 10 10 10 10 10 10 10 1	N/A
8.11.3	Mechanical strength test	1550 1550 1550 1550 1550 1550 1550 1550	N/A
8.11.3.1	Downward force test, force (N) applied:		N/A

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TRF: IEC/EN62368-1-2018-V2

Effective Date: 2024-06-21



RED Lab	poratories Inc.  Page 20 of 74 Report  No.RED241217116003ED-AM-A  EN 62368-1	40
Clause	Requirement + Test 💯 🛷 ი 🛷 🛷 😿 Result - Remark 💞 🖋 🛷 🗸 Verdict	: 42
8.11.3.2	Lateral push force test N/A	1
8.11.3.3	Integrity of slide rail end stops N/A	42
8.11.4	Compliance N/A	40
8.12	Telescoping or rod antennas @ @ @ @ @ @ @ @ N/A	42
PER PER	Button/ball diameter (mm)	2

THERMAL BURN INJURY		Р
Thermal energy source classifications		Р
Touch temperature limits		Р
Touch temperatures of accessible parts:	(See appended table 5.4.1.4, 6.3.2, 9.0, B.2.6)	Р
Test method and compliance		Р
Safeguards against thermal energy sources		Р
Requirements for safeguards		Р
Equipment safeguard	Enclosure is a safeguard	Р
Instructional safeguard:		N/A
Requirements for wireless power transmitters		N/A
General		N/A
Specification of the foreign objects		N/A
Test method and compliance		N/A
	Thermal energy source classifications  Touch temperature limits  Touch temperatures of accessible parts:  Test method and compliance  Safeguards against thermal energy sources  Requirements for safeguards  Equipment safeguard  Instructional safeguard:  Requirements for wireless power transmitters  General  Specification of the foreign objects	Thermal energy source classifications  Touch temperature limits  Touch temperatures of accessible parts

10	RADIATION		N/A
10.2	Radiation energy source classification		N/A
10.2.1	General classification	10 10 10 10 10 10 10 10 10 10 10 10 10 1	N/A
PED PED	Lasers.	Not applicable 🎺 🖋 🧳 🧸	_
PED PED	Lamps and lamp systems	RS1 of of of of	_
PED PED	Image Intelligent Watchs	Not applicable	_
PER PER	X-Ray.	Not applicable 🎺 🖋 🧸	_
PED PED	Personal music player	Not applicable 🧀 🔑 🧸	_
10.3	Safeguards against laser radiation	THE	Ø N/A
PER PER	The standard(s) equipment containing laser(s) comply		N/A
10.4	Safeguards against optical radiation from lamps LED types)	and lamp systems (including	N/A
10.4.1	General requirements		N/A
OFFE OFFE	Instructional safeguard provided for accessible radiation level needs to exceed		N/A

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TRF: IEC/EN62368-1-2018-V2

Effective Date: 2024-06-21



RED Laboratories Inc. Page 21 of 74 Report EN 62368-1		No.RED241217116003ED-AM-					
Clause	Requirement + Test	Result - Remark	Verdic				
	Risk group marking and location		N/A				
Part Part	Information for safe operation and installation		N/A				
10.4.2	Requirements for enclosures		N/A				
PER PER	UV radiation exposure	200 200 200 200 200 4	N/A				
10.4.3	Instructional safeguard	THE ARE ARE ARE ARE	√ N/A				
10.5	Safeguards against X-radiation	all all all all all	√ N/A				
10.5.1	Requirements A A A A A A		Ø N/A				
	Instructional safeguard for skilled persons:		_				
10.5.3	Maximum radiation (pA/kg)						
10.6	Safeguards against acoustic energy sources	10 10 10 10 10 10 10 10 10 10 10 10 10 1	N/A				
10.6.1	General of a first and a first	THE THE THE THE THE THE THE THE	√ N/A				
10.6.2	Classification & A A A A	all all all all all a	Ø N/A				
agi agi	Acoustic output L <sub>Aeq,T</sub> , dB(A)		Ø N/A				
DEC DEC	Unweighted RMS output voltage (mV)		√ N/A				
OFFI OFFI	Digital output signal (dBFS)		Ø N/A				
10.6.3	Requirements for dose-based systems		N/A				
10.6.3.1	General requirements	D. D. D. D. D. D.	N/A				
10.6.3.2	Dose-based warning and automatic decrease		N/A				
10.6.3.3	Exposure-based warning and requirements		N/A				
PER PER	30 s integrated exposure level (MEL30)		N/A				
PER PER	Warning for MEL ≥ 100 dB(A)	200 200 200 200 200 200 4	N/A				
10.6.4	Measurement methods		N/A				
10.6.5	Protection of persons	D. D. D. D. D. D.	N/A				
	Instructional safeguards:		N/A				
10.6.6	Requirements for listening devices (Intelligent Watch, earphones, etc.)	THE THE THE THE THE THE	N/A				
10.6.6.1	Corded listening devices with analogue input		Ø N/A				
PED PED	Listening device input voltage (mV)	THE THE THE THE THE THE	N/A				
10.6.6.2	Corded listening devices with digital input	all all all all all all	Ø N/A				
agi agi	Max. acoustic output L <sub>Aeq,T</sub> , dB(A)		N/A				
10.6.6.3	Cordless listening devices	D D D D D D	N/A				
P P	Max. acoustic output L <sub>Aeq,T</sub> , dB(A)		N/A				

B NORMAL OPERATING CONDITION TESTS, ABNORMAL OPERATING CONDITION TESTS AND SINGLE FAULT CONDITION TESTS		
B.1	General	P

Subdistrict, Bao'an District, Shenzhen, Guangdong, China



RED La	boratories Inc. Page 22 of 74 Report EN 62368-1	No.RED241217116003ED	-AM-A
Clause	Requirement + Test	Result - Remark	Verdic
B.1.5	Temperature measurement conditions	(See appended table B.1.5)	N/A
B.2	Normal operating conditions		N/A
B.2.1	General requirements.	(See Test Item Particulars and appended test tables)	N/A
PER PER	Audio Amplifiers and equipment with audio amplifiers	No Audio Amplifiers	N/A
B.2.3	Supply voltage and tolerances	20 20 20 20 A	P
B.2.5	Input test.	(See appended table B.2.5)	E REP
B.3	Simulated abnormal operating conditions		P
B.3.1	General	0 0 0 0 0	P
B.3.2	Covering of ventilation openings		N/A
Part Part	Instructional safeguard	Not applicable	N/A
B.3.3	DC mains polarity test	The EUT is not connected to a D.C. mains	N/A
B.3.4	Setting of voltage selector	No voltage selector was used.	N/A
B.3.5	Maximum load at output terminals		ø N/A
B.3.6	Reverse battery polarity	8 8 8 8 8 8	N/A
B.3.7	Audio amplifier abnormal operating conditions		N/A
B.3.8	Safeguards functional during and after abnormal operating conditions	THE REPORT OF THE REPORT OF	N/A
B.4	Simulated single fault conditions	affi affi affi affi affi affi a	P.
B.4.1	General A A A A A A		P.O.
B.4.2	Temperature controlling device	No temperature controlling device used	N/A
B.4.3	Blocked motor test		N/A
B.4.4	Functional insulation		P
B.4.4.1	Short circuit of clearances for functional insulation	\$ \$\$\text{\$\tex{\$\text{\$\exititt{\$\text{\$\exitit{\$\text{\$\text{\$\text{\$\text{\$\text{\$\text{\$\text{\$\text{\$\text{\$\text{\$\text{\$\text{\$\text{\$\text{\$\text{\$\text{\$\text{\$\e	N/A
B.4.4.2	Short circuit of creepage distances for functional insulation	THE REPORT OF THE REPORT OF	N/A
B.4.4.3	Short circuit of functional insulation on coated printed boards	No coated printed boards used.	N/A
B.4.5	Short-circuit and interruption of electrodes in tubes and semiconductors	See	N/A
B.4.6	Short circuit or disconnection of passive components	(See appended table B.3, B.4)	N/A
B.4.7	Continuous operation of components		N/A
B.4.8	Compliance during and after single fault conditions	(See appended table B.3, B.4)	N/A

Subdistrict, Bao'an District, Shenzhen, Guangdong, China



RED Lak	ooratories Inc. Page 23 of 74 Report No.RED241217116003ED	O-AM-A
Clause	Requirement + Test	Verdic
B.4.9	Battery charging and discharging under single fault conditions	N/A
С	UV RADIATION	Ø N/A
C.19	Protection of materials in equipment from UV radiation	Ø N/A
C.1.2	Requirements A A A A A A A A A A A A A A A A A A A	⊘ N/A
C.1.3	Test method	N/A
C.2	UV light conditioning test	N/A
C.2.1	Test apparatus:	N/A
C.2.2	Mounting of test samples A A A A A A A A A A A A A A A A A A A	√ N/A
C.2.3	Carbon-arc light-exposure test	Ø N/A
C.2.4	Xenon-arc light-exposure test	N/A
D	TEST GENERATORS	N/A
D.1	Impulse test generators	N/A
D.2	Antenna interface test generator	N/A
D.3	Electronic pulse generator	N/A
	TEST CONDITIONS FOR EQUIPMENT CONTAINING AUDIO AMPLIFIERS	P
EA P	Electrical energy source classification for audio signals	N/A
PELL PELL	Maximum non-clipped output power (W)::	_
PED PED	Rated load impedance (Ω)	
OED OED	Open-circuit output voltage (V)	_
	Instructional safeguard.	
E.2	Audio amplifier normal operating conditions	N/A
Price Price	Audio signal source type:	À. 17.
PRI PRI	Audio output power (W)	
PER PER	Audio output voltage (V)	
OFFI OFFI	Rated load impedance (Ω)	
- 14.		€ NIA
	Requirements for temperature measurement	N/A
E:3	Audio amplifier abnormal operating conditions	N/A
	EQUIPMENT MARKINGS, INSTRUCTIONS, AND INSTRUCTIONAL SAFEGUARDS	
F.1	General	P
Part Part	Language: English	- CV/
F.2	Letter symbols and graphical symbols	P
F.2.1 P	Letter symbols according to IEC60027-1	P
F.2.2	Graphic symbols according to IEC, ISO or manufacturer specific	E PE

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RED Laboratories Inc. Page 24 of 74 Report No.RED241217116003ED				
Clause	Requirement + Test	Result - Remark	Verdict	
F.3	Equipment markings		P	
F.3.1	Equipment marking locations		P	
F.3.2	Equipment identification markings ************************************	20 20 20 20 20 A	Р	
F.3.2.1	Manufacturer identification	See copy of marking plate	Р	
F.3.2.2	Model identification	See copy of marking plate	Р	
F.3.3	Equipment rating markings	See copy of marking plate	REP.	
F.3.3.1	Equipment with direct connection to mains		N/A	
F.3.3.2	Equipment without direct connection to mains	See copy of marking plate	Р	
F.3.3.3	Nature of the supply voltage:	Not directly connected the mains.	N/A	
F.3.3.4	Rated voltage		N/A	
F.3.3.5	Rated frequency:	B B B B B	N/A	
F.3.3.6	Rated current or rated power:		N/A	
F.3.3.7	Equipment with multiple supply connections		N/A	
=.3.4	Voltage setting device		N/A	
F.3.5	Terminals and operating devices		N/A	
F.3.5.1	Mains appliance outlet and socket-outlet markings		N/A	
F.3.5.2	Switch position identification marking		N/A	
F.3.5.3	Replacement fuse identification and rating markings	AND AND AND AND AND AND	N/A	
PED PED	Instructional safeguards for neutral fuse	off off off off off	N/A	
F.3.5.4	Replacement battery identification marking:		N/A	
F.3.5.5	Neutral conductor terminal		N/A	
F.3.5.6	Terminal marking location		N/A	
F.3.6	Equipment markings related to equipment classification		N/A	
F.3.6.1	Class I equipment	0 0 0 0 0 0	N/A	
=.3.6.1.1	Protective earthing conductor terminal:	Class III equipment.	N/A	
=.3.6.1.2	Protective bonding conductor terminals		N/A	
3.6.2	Equipment class marking:		N/A	
=.3.6.3	Functional earthing terminal marking:		N/A	
=.3.7	Equipment IP rating marking:	IPX0	N/A	
=.3.8	External power supply output marking:	2000 APP APP APP APP APP	N/A	
F.3.9 💎	Durability, legibility and permanence of marking	aft aft aft aft aft	PED PED	

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RED	) Lab	oratories Inc. Page 25 of 74 Report EN 62368-1	PER.	No.	RED2	4121	711	6003EC	-AM-A
Clause	PER 2	Requirement + Test	Res	ult - I	Remai	rk	DED	PER A	Verdict
F.3.10	Paris 1	Test for permanence of markings	rem the	ai <mark>n</mark> s label		e, and s no	d mo curli	reover ng and	P P P
F.4	PER 2	Instructions @ @ @ @ @ @	PER	PER	PER	PER	DED.	REP. 1	E PE
Parisi d	PED 2	a)	PER	PED.	RED	PED	ard.	PER T	N/A
PER	Paris 1	b) E quipment for use in locations where children not likely to be present	PED	PER	PELL	PED	DEC.	Par 4	N/A
PED	PER 2	c)	See	user	manı	ual	DEL.	PER T	P <sup>C</sup>
RED	PER	Instructions for installation and interconnection	PER	PED	PED	PED	ED	RED.	NI/A
		Equipment intended for use only in restricted access area	PER						N/A
PET.	PED 2	e)	PED	RED	RED	RED	aED.	PER T	N/A
PEC.	PARTIE D	f)	TO E.C.	PER DE	PER SERVI	PER SELL	DED.	PER T	N/A
PED	PIED 2	g)Protective earthing used as a safeguard	PER	PED	RED	RED	DED.	POED A	N/A
REL	Period	h)Protective conductor current exceeding ES2 limits	PER	RED	Party.	PEL)	aff.C	PER A	N/A
PER	PER S	i) 10 10 10 10 10 10 10 10 10 10 10 10 10	PER	PER	PER	PER	a Firm	PER T	N/A
PED.	PED 3	Graphic symbols used on equipment	PER	PER	PELL	PED	DED.	PED 4	ED PED
		Permanently connected equipment not provided with all-pole mains switch	PED						N/A
PIED A	Paris 2	k)	PEL	PED	PER	PED.	DED.	PER T	N/A
PI	P. D		P	P	P	P	200	P 1	N/A
PED.	PER 2	Equipment containing insulating liquid	PED	PED	PER	PED	DED.	PED 1	ED PED
PER	PER 3	m) Installation instructions for outdoor equipment	PER	RED	PER	PER	DED	PER 4	√ N/A
F.5	REP	Instructional safeguards	TELL	TOPP	PER	PER	EC.	7000	N/A
G	_0_	COMPONENTS		, <u>Ö</u> ,		<u>, , , , , , , , , , , , , , , , , , , </u>	<u>.Ö.</u>		P
G.1	P	Switches	PE	P	P	P	2	PART A	N/A
G.1.1	PER 2	General of the second of the s	No s	such	comp	onen	ts us	sed.	✓ N/A
G.1.2	PED 3	Ratings, endurance, spacing, maximum load	PED	PED	PED	PED	DED	PIED F	√A
G.1.3	PED 2	Test method and compliance	PER	PER	PED	PED	DED.	PER T	N/A <sup>2</sup>
G.2	Ò	Relays	Ó	Ó	Ó	,	ó	, ,	N/A

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Clause	Requirement + Test	Result - Remark	Verdict
G.2.1	Requirements	No such components used.	N/A
G.2.2	Overload test		N/A
G.2.3	Relay controlling connectors supplying power to other equipment		N/A
G.2.4	Test method and compliance		N/A
G.3	Protective devices		N/A
G.3.1	Thermal cut-offs	12 12 12 12 12 12 12 12 12 12 12 12 12 1	N/A
P P	Thermal cut-outs separately approved according to IEC 60730 with conditions indicated in a) & b)		N/A
PER PER	Thermal cut-outs tested as part of the equipment as indicated in c)	AND AND AND AND AND AND	N/A
G.3.1.2	Test method and compliance	THE THE THE THE THE THE	N/A
G.3.2	Thermal links	OFF OFF OFF OFF	N/A
G.3.2.1	a) Thermal links tested separately according to IEC 60691 with specifics		N/A
Part Part	b) Thermal links tested as part of the equipment		N/A
G.3.2.2	Test method and compliance		N/A
G.3.3	PTC thermistors	APP APP APP APP APP APP	N/A
G.3.4	Overcurrent protection devices	per per per per per per	<sup>∞</sup> N/A
G.3.5	Safeguards components not mentioned in G.3.1 to G.3.4		N/A
G.3.5.1	Non-resettable devices suitably rated and marking provided	AND AND AND AND AND AND	N/A
G.3.5.2	Single faults conditions	(See appended table B.3, B.4)	N/A
G.4	Connectors		N/A
G.4.1	Spacings O O O O O O O O O O O O O O O O O O O		N/A
G.4.2	Mains connector configuration		N/A
G.4.3	Plug is shaped that insertion into mains socket- outlets or appliance coupler is unlikely		N/A
G.5	Wound components	all all all all all all	N/A
G.5.1	Wire insulation in wound components	No such components used.	N/A
G.5.1.2	Protection against mechanical stress	Di Di Di Di Di	N/A
G.5.2	Endurance test		N/A
G.5.2.1	General test requirements		N/A
G.5.2.2	Heat run test @ @ @ @ @ @		N/A
PED PED	Test time (days per cycle)	Det de de de de de	_
PED PED	Test temperature (°C)	THE THE THE THE THE THE THE	_
G.5.2.3	Wound components supplied from the mains		N/A

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RED Lab	Page 27 of 74 Report EN 62368-1	No.RED241217116003ED-AM-	A
Clause	Requirement + Test	Result - Remark	dict
G.5.2.4	No insulation breakdown	N	/A
G.5.3	Transformers	A PART OF THE NO.	/A
G.5.3.1	Compliance method	OF OF OF OF OF O	/A
PER PER	Position	A PART OF STREET	/A
PER PER	Method of protection	AND AND AND AND AND AND AND AND	/A
G.5.3.2	Insulation A A A A A A	AP AP AP AP AP AP	/A
DEL DEL	Protection from displacement of windings		_
G.5.3.3	Transformer overload tests	N/	/A
G.5.3.3.1	Test conditions	OF OF OF OF OF O	/A
G.5.3.3.2	Winding temperatures ** ** ** ***	A A A A A A A A A A A A A A A A A A A	/A
G.5.3.3.3	Winding temperatures - alternative test method	AND	/A
G.5.3.4	Transformers using FIW	AP AP AP AP AP AP N	/A
G.5.3.4.1	General of the second of the s	P P P P P P P	/A
PER PER	FIW wire nominal diameter	AP AP AP AP AP AP	_
G.5.3.4.2	Transformers with basic insulation only	A A A A A A A A	/A
G.5.3.4.3	Transformers with double insulation or reinforced insulation:	AND	/A
G.5.3.4.4	Transformers with FIW wound on metal or ferrite	THE THE THE THE THE THE THE	/A
PET PET	core	AP AP AP AP AP AP	PED.
G.5.3.4.5	Thermal cycling test and compliance	O O O O O O N	/A
G.5.3.4.6	Partial discharge test	o o o o o o o N	/A
G.5.3.4.7	Routine test	N	/A
G.5.4 🧀	Motors of all all all all all all all all all al	AP AP AP AP AP AP AP	/A
G.5.4.1	General requirements of the second of the se	A A A A A A A A A A A A A A A A A A A	/A
G.5.4.2	Motor overload test conditions	A SE	/A
G.5.4.3	Running overload test	0 0 0 0 0 N	/A
G.5.4.4.2	Locked-rotor overload test	A A A A A A N	/A
THE THE	Test duration (days):	1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1	_
G.5.4.5	Running overload test for DC motors		/A
G.5.4.5.2	Tested in the unit	of of of of of of of	/A
G.5.4.5.3	Alternative method	N	/A
G.5.4.6	Locked-rotor overload test for DC motors	N	/A
G.5.4.6.2	Tested in the unit 🎺 🌮 🎺 🤣 🤣	A A A A A A A A A	/A
PED PED	Maximum Temperature	AND AND AND AND AND AND AND AND	/A
G.5.4.6.3	Alternative method	A NA	/A
G.5.4.7	Motors with capacitors	N)	/A

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Clause	Requirement + Test Result - Remark Result - Remark	Verdict
G.5.4.8	Three-phase motors	N/A
G.5.4.9	Series motors	N/A
Part Part	Operating voltage	<u> </u>
G.6	Wire Insulation W W W W W W W W W W	N/A
G.6.1	General W W W W W No such components used.	√ N/A
G.6.2	Enamelled winding wire insulation and the second se	N/A
G.7	Mains supply cords	N/A
G.7.1	General requirements	N/A
Part Part	Type de la	<u> </u>
G.7.2	Cross sectional area (mm² or AWG)	₹ N/A
G.7.3	Cord anchorages and strain relief for non- detachable power supply cords	N/A
G.7.3.2	Cord strain relief	N/A
G.7.3.2.1	Requirements	N/A
	Strain relief test force (N):	N/A
G.7.3.2.2	Strain relief mechanism failure	N/A
G.7.3.2.3	Cord sheath or jacket position, distance (mm):	N/A
G.7.3.2.4	Strain relief and cord anchorage material	N/A
G.7.4	Cord Entry of a far o	₩ N/A
G.7.5	Non-detachable cord bend protection	N/A
G.7.5.1	Requirements of the second of	N/A
G.7.5.2	Test method and compliance	N/A
Participants	Overall diameter or minor overall dimension, D (mm)	
12. 12.	Radius of curvature after test (mm)	
G.7.6	Supply wiring space	N/A
G.7.6.1	General requirements	N/A
G.7.6.2	Stranded wire	N/A
G.7.6.2.1	Requirements	N/A
G.7.6.2.2	Test with 8 mm strand	N/A
G.8	Varistors	N/A
G.8.1	General requirements of the second of the se	N/A
G.8.2	Safeguards against fire and	₩ N/A
G.8.2.1	General of all all all all all all all all all al	√ N/A
G.8.2.2	Varistor overload test	N/A
G.8.2.3	Temporary overvoltage test	N/A

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RED Lal	boratories Inc. Page 29 of 74 Report EN 62368-1	No.RED241217116003ED	-AM-A
Clause	Requirement + Test	Result - Remark	Verdict
G.9	Integrated circuit (IC) current limiters		N/A
G.9.1	Requirements		N/A
PER PER	IC limiter output current (max. 5A)		
PER PER	Manufacturers' defined drift	AND AND AND AND AND AND	_
G.9.2	Test Program de la company de	per all all all all all a	✓ N/A
G.9.3	Compliance of of of of of of	THE THE THE THE THE THE	√ N/A
G.10 🧀	Resistors A A A A A A	THE THE THE THE THE THE THE	N/A
G.10.1	General		N/A
G.10.2	Conditioning		N/A
G.10.3	Resistor test W W W W		N/A
G.10.4	Voltage surge test 🧬 🎤 🧬 🛷 🛷		✓ N/A
G.10.5	Impulse test 🛷 🛷 🛷 🛷 🛷	AND AND AND AND AND A	√ N/A
G.10.6	Overload test	THE THE THE THE THE THE THE	Ø N/A
G <mark>.11 🧀</mark>	Capacitors and RC units 🧳 🦸 🦸	THE THE THE THE THE THE THE	√ N/A
G.11.1	General requirements A A A A	No such components used.	N/A
G.11.2	Conditioning of capacitors and RC units		N/A
G.11.3	Rules for selecting capacitors		N/A
G.12	Optocouplers		N/A
Paris Paris	Optocouplers comply with IEC 60747-5-5 with specifics	No such components used.	N/A
PED PED	Type test voltage V <sub>ini,a</sub> :	THE REP AND AND AND AND AND	_
, , ,	Routine test voltage, V <sub>ini, b</sub> :		_
G.13	Printed boards		P
G.13.1	General requirements		P
G.13.2	Uncoated printed boards		P
G,13.3	Coated printed boards   Coated printed boards	THE THE THE THE THE THE THE	✓ N/A
G.13.4	Insulation between conductors on the same inner surface		N/A
G.13.5	Insulation between conductors on different surfaces	0 0 0 0 0	N/A
10. 10.	Distance through insulation	D. D. D. D. D. D.	N/A
PART PART	Number of insulation layers (pcs):		_
G.13.6	Tests on coated printed boards		N/A
G.13.6.1	Sample preparation and preliminary inspection	APP APP APP APP APP APP APP	N/A
G.13.6.2	Test method and compliance	THE PART OF THE PART OF THE	✓ N/A
G 14	Coating on components terminals	THE THE THE THE THE THE	N/A <sup>®</sup>
G.14.1	Requirements	0 0 0 0 0	N/A

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Clause	Requirement + Test	Result - Remark	erdict
G.15	Pressurized liquid filled components		V/A
G.15.1	Requirements		V/A
G.15.2	Test methods and compliance		V/A
G.15.2.1	Hydrostatic pressure test		V/A
G.15.2.2	Creep resistance test	per all all all all all a	V/A
G.15.2.3	Tubing and fittings compatibility test	all all all all all all all a	V/A
G.15.2.4	Vibration test		V/A
G.15.2.5	Thermal cycling test		V/A
G.15.2.6	Force test		V/A
G.15.3	Compliance of a way of a way		V/A
G,16 🧀	IC including capacitor discharge function (ICX)	AND AND AND AND AND AND AND AND	V/A
G.16.1	Condition for fault tested is not required.		V/A
OFF. OFF.	ICX with associated circuitry tested in equipment		V/A
PED DED	ICX tested separately		V/A
G.16.2	Tests of the state		V/A
PER PER	Smallest capacitance and smallest resistance specified by ICX manufacturer for impulse test:	200 200 200 200 200 200 4	
PER PER	Mains voltage that impulses to be superimposed on	all all all all all all a	
PED PED			
Peril Peril	Largest capacitance and smallest resistance for ICX tested by itself for 10000 cycles test		_
G-16.3	Capacitor discharge test		V/A
Н	CRITERIA FOR TELEPHONE RINGING SIGNALS	n l	V/A
H.1	General		V/A
H.2	Method A		V/A
H.3	Method B		V/A
H.3.1	Ringing signal W W W W		V/A
H,3.1.1	Frequency (Hz)	APP APP APP APP APP APP A	
H.3.1.2	Voltage (V)		
H.3.1.3	Cadence; time (s) and voltage (V):	per per per per per per per per	
H,3.1.4	Single fault current (mA):	APP APP APP APP APP APP A	
H.3.2	Tripping device and monitoring voltage	THE	V/A
H.3.2.1	Conditions for use of a tripping device or a monitoring voltage		V/A
H.3.2.2	Tripping device		V/A
H.3.2.3	Monitoring voltage (V)	APP APP APP APP APP APP	V/A

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Clause	Requirement + Test	Result - Remark	Verdic
J	INSULATED WINDING WIRES FOR USE WITHOUT	INTERLEAVED	N/A
	INSULATION		PEL PEL
J.AEP REP.	General A A A A A A A		₩ N/A
PED PED	Winding wire insulation:	part part part part part	
OFF.	Solid round winding wire, diameter (mm):		N/A
PED PED	Solid square and rectangular (flatwise bending) winding wire, cross-sectional area (mm²):		N/A
J.2/J.3	Tests and Manufacturing 🥏 🥏 🦸 🗸		PEC PEC
K	SAFETY INTERLOCKS		N/A
K.1	General requirements		N/A
	Instructional safeguard:		N/A
K.2	Components of safety interlock safeguard mechan	nism	N/A
K.3	Inadvertent change of operating mode		N/A
<b>K.4</b>	Interlock safeguard override		N/A
<b>&lt;</b> .5	Fail-safe		N/A
<.5.1 🎺	Under single fault condition 🥟 🛷 🧀 💮	off off off off off off	₩ N/A
K <sub>1</sub> 6 <sup>©</sup> ~	Mechanically operated safety interlocks 🧀 🧀	per per per per per per	N/A
<b>&lt;</b> .6.1	Endurance requirement		N/A
<.6.2	Test method and compliance:		N/A
K.7	Interlock circuit isolation		N/A
<.7.1	Separation distance for contact gaps & interlock circuit elements		N/A
	In circuit connected to mains, separation distance for contact gaps (mm):		N/A
	In circuit isolated from mains, separation distance for contact gaps (mm):		N/A
	Electric strength test before and after the test of K.7.2	(See appended table 5.4.9)	N/A
<b>&lt;</b> .7.2	Overload test, Current (A):		N/A
<b>&lt;</b> .7.3	Endurance test		N/A
<b>&lt;</b> .7.4	Electric strength test		N/A
L	DISCONNECT DEVICES		N/A
1	General requirements	Class III equipment used.	N/A
2	Permanently connected equipment		N/A
3	Parts that remain energized		N/A
4	Single-phase equipment		N/A
<b>5</b>	Three-phase equipment		N/A

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TRF: IEC/EN62368-1-2018-V2

Effective Date: 2024-06-21



RED Lab	poratories Inc. Page 32 of 74 Report No.RED241217116003E	D-AM-A
Clause	Requirement + Test	Verdic
L.7	Plugs as disconnect devices	N/A
L.8	Multiple power sources	N/A
	Instructional safeguard:	N/A
М	EQUIPMENT CONTAINING BATTERIES AND THEIR PROTECTION CIRCUITS	Р
M.1	General requirements	Р
M.2	Safety of batteries and their cells	RIP BIR
M.2.1	Batteries and their cells comply with relevant IEC standards:	Р
M.3	Protection circuits for batteries provided within the equipment	RIP RIP
M.3.1	Requirements	Р
M.3.2	Test method	Р
	Overcharging of a rechargeable battery	Р
	Excessive discharging	Р
	Unintentional charging of a non-rechargeable battery	Р
	Reverse charging of a rechargeable battery	Р
M.3.3	Compliance	Р
M.4	Additional safeguards for equipment containing a portable secondary lithium battery	Р
M.4.1	General	N/A
M.4.2	Charging safeguards	N/A
M.4.2.1	Requirements	N/A
M.4.2.2	Compliance:	N/A
M.4.3	Fire enclosure	N/A
M.4.4	Drop test of equipment containing a secondary lithium battery	RIP RIP
M.4.4.2	Preparation and procedure for the drop test	Р
M.4.4.3	Drop, Voltage on reference and dropped batteries (V); voltage difference during 24 h period (%)::	N/A
M.4.4.4	Check of the charge/discharge function	N/A
M.4.4.5	Charge / discharge cycle test	N/A
M.4.4.6	Compliance	N/A
M.5	Risk of burn due to short-circuit during carrying	N/A
M.5.1	Requirement	N/A
M.5.2	Test method and compliance	N/A
M.6	Safeguards against short-circuits	N/A
M.6.1	External and internal faults	N/A

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TRF: IEC/EN62368-1-2018-V2



RED Lab	poratories Inc. Page 33 of 74 Report No.RED241217116003E	D-AM-A
	EN 62368-1	
Clause	Requirement + Test	Verdic
M.6.2	Compliance	N/A
M.7	Risk of explosion from lead acid and NiCd batteries	N/A
M.7.1	Ventilation preventing explosive gas concentration	N/A
	Calculated hydrogen generation rate:	N/A
M.7.2	Test method and compliance	N/A
PED PED	Minimum air flow rate, Q (m³/h)	N/A
M.7.3	Ventilation tests	N/A
M.7.3.1	General	N/A
M.7.3.2	Ventilation test – alternative 1	N/A
	Hydrogen gas concentration (%):	N/A
M.7.3.3	Ventilation test – alternative 2	N/A
	Obtained hydrogen generation rate:	N/A
M.7.3.4	Ventilation test – alternative 3	N/A
	Hydrogen gas concentration (%):	N/A
M.7.4	Marking:	N/A
M.8	Protection against internal ignition from external spark sources of batteries with aqueous electrolyte	N/A
M.8.1	General	N/A
M.8.2	Test method A A A A A A A A A A A A	N/A
M.8.2.1	General	N/A
M.8.2.2	Estimation of hypothetical volume $V_Z$ (m³/s):	
M.8.2.3	Correction factors:	_
M.8.2.4	Calculation of distance d (mm):	
M.9	Preventing electrolyte spillage 🥙 🎺 🥙 🥙 🥙 🎺 🎺	N/A
M.9.1	Protection from electrolyte spillage	N/A
M.9.2	Tray for preventing electrolyte spillage	N/A
M.10	Instructions to prevent reasonably foreseeable misuse	N/A
	Instructional safeguard:	N/A
N	ELECTROCHEMICAL POTENTIALS	N/A
	Material(s) used:	_
0	MEASUREMENT OF CREEPAGE DISTANCES AND CLEARANCES	N/A
	Value of <i>X</i> (mm):	_
Р	SAFEGUARDS AGAINST CONDUCTIVE OBJECTS	N/A
P.1	General No openings	N/A
P.2	Safeguards against entry or consequences of entry of a foreign object	N/A

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RED Laboratories Inc.  Page 34 of 74 Report  No.RED241217116003  EN 62368-1		ED-AM-A
Clause	Requirement + Test	Verdic
P.2.1	General	N/A
P.2.2	Safeguards against entry of a foreign object	N/A
	Location and Dimensions (mm):	
P.2.3	Safeguards against the consequences of entry of a foreign object	N/A
P.2.3.1	Safeguard requirements	N/A
	The ES3 and PS3 keep-out volume in Figure P.3 not applicable to transportable equipment	N/A
	Transportable equipment with metalized plastic parts:	N/A
P.2.3.2	Consequence of entry test:	N/A
P.3 0	Safeguards against spillage of internal liquids 🧳 🎺 🧳 🧳	₩ N/A
P.3.1	General	N/A
P.3.2	Determination of spillage consequences	N/A
P.3.3	Spillage safeguards	N/A
P.3.4	Compliance	N/A
P.4	Metallized coatings and adhesives securing parts	N/A
P.4.1	General	N/A
P.4.2	Tests	N/A
	Conditioning, T <sub>C</sub> (°C):	
	Duration (weeks)	
Q	CIRCUITS INTENDED FOR INTERCONNECTION WITH BUILDING WIRING	N/A
Q.10	Limited power sources	N/A
Q.1.1	Requirements	N/A
	a) Inherently limited output	N/A
	b) Impedance limited output	N/A
	c) Regulating network limited output	N/A
	d) Overcurrent protective device limited output	N/A
	e) IC current limiter complying with G.9	N/A
Q.1.2	Test method and compliance	N/A
	Current rating of overcurrent protective device (A)	N/A
Q.2	Test for external circuits – paired conductor cable	N/A
	Maximum output current (A):	Ø N/A
	Current limiting method:	14.

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PER PE	aboratories Inc. Page 35 of 74 Report No.RED241217116003E	PER PER
Clause	Requirement + Test	Verdic
R	LIMITED SHORT CIRCUIT TEST	N/A
R.1	General	N/A
R.2	Test setup	N/A
	Overcurrent protective device for test:	
R.3	Test method	N/A
	Cord/cable used for test:	
R.4	Compliance	N/A
S	TESTS FOR RESISTANCE TO HEAT AND FIRE	N/A
S.1	Flammability test for fire enclosures and fire barrier materials of equipment where the steady state power does not exceed 4 000 W	N/A
	Samples, material:	
	Wall thickness (mm):	_
	Conditioning (°C):	
	Test flame according to IEC 60695-11-5 with conditions as set out	N/A
	- Material not consumed completely	N/A
	- Material extinguishes within 30s	N/A
	- No burning of layer or wrapping tissue	N/A
S.2	Flammability test for fire enclosure and fire barrier integrity	N/A
	Samples, material:	
	Wall thickness (mm):	_
	Conditioning (°C)	
S.3	Flammability test for the bottom of a fire enclosure	N/A
S.3.1	Mounting of samples	N/A
S.3.2	Test method and compliance	N/A
	Mounting of samples:	
	Wall thickness (mm):	
S.4	Flammability classification of materials	N/A
S.5	Flammability test for fire enclosure materials of equipment with a steady state power exceeding 4 000 W	N/A
	Samples, material:	_
	Wall thickness (mm)	_
	Conditioning (°C):	_
Т	MECHANICAL STRENGTH TESTS	Р
T.1	General	N/A

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RED La	RED Laboratories Inc.  Page 36 of 74 Report  No.RED241217116003ED  EN 62368-1		
Clause	Requirement + Test	Result - Remark	Verdic
T.2	Steady force test, 10 N:		N/A
T.3	Steady force test, 30 N:		N/A
Т.4	Steady force test, 100 N:	(See appended table T.2, T.3, T.4, T.5)	Р
Т.5	Steady force test, 250 N:	(See appended table T.2, T.3, T.4, T.5)	N/A
Т.6	Enclosure impact test	(See appended table T.6)	N/A
	Fall test		N/A
	Swing test		N/A
T.7	Drop test:	(See appended table T.7)	Р
T.8	Stress relief test:	(See appended table T.8)	N/A
Т.9	Glass Impact Test:		N/A
T.10	Glass fragmentation test		N/A
	Number of particles counted:		N/A
T.11	Test for telescoping or rod antennas		N/A
	Torque value (Nm):		N/A
U	MECHANICAL STRENGTH OF CATHODE RAY TUBES (CRT) AND PROTECTION AGAINST THE EFFECTS OF IMPLOSION		N/A
U.1	General		N/A
	Instructional safeguard :		N/A
U.2	Test method and compliance for non-intrinsically	protected CRTs	N/A
U.3	Protective screen		N/A
V	DETERMINATION OF ACCESSIBLE PARTS		N/A
V.1	Accessible parts of equipment		N/A
V.1.1	General		N/A
V.1.2	Surfaces and openings tested with jointed test probes		N/A
V.1.3	Openings tested with straight unjointed test probes		N/A
V.1.4	Plugs, jacks, connectors tested with blunt probe		N/A
V.1.5	Slot openings tested with wedge probe		N/A
V.1.6	Terminals tested with rigid test wire		N/A
V.2	Accessible part criterion		N/A
X	ALTERNATIVE METHOD FOR DETERMINING CLE IN CIRCUITS CONNECTED TO AN AC MAINS NOT (300 V RMS)		N/A
	Clearance:		N/A

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Y.5.5.2

Y.5.5.3

Y.6

Y.6.1

Y.6.2

RED La	boratories Inc. Page 37 of 74 Report EN 62368-1	No.RED241217116003EI	D-AM-A
Clause	Requirement + Test	Result - Remark	Verdic
Y	CONSTRUCTION REQUIREMENTS FOR OUTDOO	R ENCLOSURES	N/A
Y.1	General		N/A
Y.2	Resistance to UV radiation		N/A
Y.3	Resistance to corrosion		N/A
Y.3.1	Metallic parts of outdoor enclosures are resistant to effects of water-borne contaminants by:		N/A
Y.3.2	Test apparatus		N/A
Y.3.3	Water – saturated sulphur dioxide atmosphere		N/A
Y.3.4	Test procedure		N/A
Y.3.5	Compliance		N/A
Y.40	Gaskets A A A A A A A		N/A
Y.4.1	General		N/A
Y.4.2	Gasket tests		N/A
Y.4.3	Tensile strength and elongation tests		N/A
	Alternative test methods:		N/A
Y.4.4	Compression test		N/A
Y.4.5	Oil resistance		N/A
Y.4.6	Securing means		N/A
Y.5	Protection of equipment within an outdoor enclos	ure	N/A
Y.5.1	General		N/A
Y.5.2	Protection from moisture		N/A
	Relevant tests of IEC 60529 or Y.5.3		N/A
Y.5.3	Water spray test		N/A
Y.5.4	Protection from plants and vermin		N/A
Y.5.5	Protection from excessive dust	AFF AFF AFF AFF	N/A <sup>®</sup>
Y.5.5.1	General		N/A

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IP5X equipment

IP6X equipment

General

Mechanical strength of enclosures

Impact test.....:

TRF: IEC/EN62368-1-2018-V2 Effective Date: 2024-06-21

N/A

N/A

N/A

N/A

N/A



Page 38 of 74

Report No.RED241217116003ED-AM-A

۶	PEL	PER	DE LE	PER	PER	PILL	PER	DEL	PEL	<b>PEN</b>	623	68-1	affli	PER	PED	PIE	PEL	DELL	PER	PILL	PED 1
9	Claus	e	R	equire	ement	t <del>†</del> Te	st	DEP	PED	PED	PED	PER	DEL	Res	ult <sup>2</sup> R	lemai	k <sub>₽</sub>	DEL	PER	<b>₽</b> V	erdict

5.2	TABLE: Classificat	ion of electric	al energy sou	irces o	affic affi	EL DEC TEL	N/A
Supply Voltage	Location (e.g.	Test conditions		Paramete	rs		ES Class
Voltage	designation)	Conditions	U (V)	I (mA)	Type <sup>1)</sup>	Additional	Olass
j.						Info <sup>2)</sup>	
		Normal			SS		ES1*
3.7V	All circuit	Abnormal	2 P.	2 P	SS	10 10 10 10 10 10 10 10 10 10 10 10 10 1	ES1*
PORT PRINT IN	P PER PER PER	Single fault		aff pff pff 4		ER PER PER	ES1*

#### Supplementary information:

- 1) Type: Steady state (SS), Capacitance (CP), Single pulse (SP), Repetitive pulses (RP), etc.
- 2) Additional Info: Frequency, Pulse duration, Pulse off time, Capacitance value, etc.
- \* This product is supplied by EN 62368-1 CB approved externa adaptor, the adaptor output is classified as ES1 circuit and no voltage converter to higher voltage within the equipment, All circuits are considered ES1.

5.4.1.	8	T	ABLE	: Wo	rking	volta	ge ı	meas	ureme	nt	PED	DED.	PE	PED	PER	PE	DED.	PED	PED	N/A
Locat	ocation						R	MS vo (V	oltage ′)	P	eak vo	oltag	je		quenc Hz)	у		Com	ment	S
P	1, 1, 1, 1, 1, 1, 1, 1, 1, 1, 1, 1, 1, 1				P	5	P	P	40///	P	2	P	P	P	P	2	P	P	P	
PED	PER	260	PER	PER	PED	PER		PER	PER	(2) EP	PER	DEP.	P	RED	-PED	P	DE DE CO	PER	-PED	PER
OFP.	OFP.	aff.	10 ES	OFP.	ard.	OED.	E.C.	OFP.	OFF.	DED.	OFP-	DEP.	Q.	OFP.			DED.	OF.C.	OFP	OFC.

#### Supplementary information:

Test with 240Vac, 60Hz.

The test result represented the worst condition.

5.4.1.10.2	TABLE	E: Vic	at sof	tenir	ng te	mpei	rature	ofth	nermo	pla	stics	OED.	OED.	OED.	DED!	OED.	ED	N/A
Method										:	ISO	306 /	B50	CED!	ED	OED.		_
Object/ Pai	rt No./Ma	aterial		N	/lanu	factu	rer/tra	dema	ark		Thick	ness	(mm)	)	Т	softe	ning (	(°C)
Property Property	51. 151.	P	P	P	2)	P	P	P	P	21	P	P	P	P	21/2	P	P	P
		POD LO	100 CO	P	DED.	PARTIE AND	PRICE	PRODUCTION OF THE PROPERTY OF	PARTI	2K.	PARTIE AND	POPO CO	PRODUCE OF THE PROPERTY OF THE	PER	200	PRODU	POPO CO	PRICE
Supplemen	ntary info	rmatio	n:															
P P	2	P	P	Pin	2	P	P	P	P	2	P	P	P	P	2	P	P	P
4 4	<u> </u>	· ·	· ·	- A		á	ó	· ·	- i	-	á	· ·	· ·	_	4	á	· ·	· ·

5.4.1.10.3	TABLE: Ball pre	essure test of thermopla	stics	PER	PER PER	WELL SEL	PER T	N/A ⁴
Allowed imp	ression diameter	(mm)	:	≤2 m	im 🎤	PART DEL	PER T	_
Object/Part I	No./Material	Manufacturer/trademark	Thickness	(mm)	Te tempera	est ture (°C)		ression eter (mm)

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#### Page 39 of 74

#### Report No.RED241217116003ED-AM-

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PEL	PEL	DELL	PER	PEL	PEL	PEL	DELL	PEL	PEN	6236	68-1	aff	PELL	PEL	PELL	PEL	DEL	PEL	PILL	PER	4
Claus	e	R	equire	ement	+Te	st	DED	PED	PED	PED	PED	DED	Resu	ılt <sup>©</sup> R	lemar	<b>k</b> p <sup>ED</sup>	DED	PED	V	erdict	1
PELL	PER	DEL.	PER	PER	PEL	PER	DEL.	PER	PER	PER	PER	aff.	PELL	PEL	PELL	PEL	DEL.	PELL	PELL	PER	P
	PED	DED.	PED	PED	OFF.	- PED	DE.C.	<b>PED</b>	PED	PED-	- PED	DED.	PED.	(all significants)	PED	PED	DED.	- PED	PED	PED	40
<u></u>	GEQ.	ED.	ED.	EQ.	- (S)	- EÒ	EQ.	CED.	EQ.	- ES	- <u>ED</u>	EQ.	aED.	D)	ED.	EQ.	ED.		EQ.	(ED)	46
Suppl	emer	ntary	infor	matio	n:																
Mater	ials c	of bo	bbin a	are no	nee	d to d	cond	uct th	is tes	t, see	e app	ende	ed tab	le 4.	1.2.	R	21	P	Par Co	P. C.	42

5.4.2,	5.4.3 TA	ABLE	: Min	imun	n Cl	earar	ices/	Creep	ag	e d	ista	nce	PED	PER	RED	PER	DED	PED.	n Page	√A
creep	ance (cl) age dista dof/betwe	nce		U <sub>p</sub> (V)		Un (V		Freq (Hz)			equi	ired m)		cl nm)	E.S (V			juired mm)		cr nm)
	THE DECK	PEC	73677	PEC	PEL		TEL	-	P	j	ED.	EC.	Paris Paris	PED		PE	-EC	PEC	PED.	PEC.
P	PART DE	PIC	P	P	P	200	RIC	P	P	2 4	200	200	2	PIC	200	P	200	P	RIC	P

#### Supplementary information:

- 1) Only for frequency above 30 kHz
- 2) Complete Electric Strength voltage (E.S. (V) when 5.4.2.4 applied)
- 3) Unless otherwise specified, the worst case conditions of Cl. & Cr. in above mentioned locations have been considered and listed.
- 4) Provide Material Group: IIIb.
- 5) \*F=Functional insulation; B=Basic insulation; S=Supplementary insulation; R=Reinforce insulation.

5.4.4.2	TAI	BLE:	Mini	imun	ı dist	anc	e thre	ough	insu	latio	n						ED.	N N	N/A	K
Distance thr (DTI) at/of	rougl	n ins	ulatio	n	Р	eak	volta	ge (V	<b>'</b> )		Insu	ılation	1	Red	juired (mm)		Mea	asure (mm	ed DTI า)	2
	ED.	PER	PED	PEC		ED.	PED	PED	PED	- PED	ED.	PED	PER	- PEC	PED	ED.		PER	PEC.	<u>s</u>
P	260	PER	PIP	PAR	PER	ale Di	P	P	PER		arc.	PER	P	P	PE	ZEC.		PED	PIC 4	ar.
Supplement	tary i	nforn	natior	n:		Ö	Ó	Ó	Ó	0	Ö	Ó	Ó		Ó	Ö	Ö	Ó	, i	ar.
1) See appe	ended	1 tab	le 4 1	2 for	detai	ils	P	P	PELL	PER	2	PER	P	P	P	2	all a	PER	P 4	2

5.4.4.9	TA	BLE	: Soli	dins	ulati	on a	t free	quen	cies :	>30 k	Hz	PER	P	PER	PER	26.	PE	PER STATE	N/A	1
Insulat	ion mate	rial			E	P	Fr	eque (kHz	-		<b>K</b> R		Thickr d (m		Ins	ulatio	on		pk)	
70	70. 0.	74	74	74	74	44	1/4	70	74	74	4	70	74	74	74	44.	74.	74	74	7
Supple	ementary	inforr	natior	n:		<u> </u>	<i>S</i>		<i>S</i>		<u> </u>					<u> </u>		<i>S</i>	20/	
P	(a)	P	P	P	P	2	P	P	P	P	2	P	P	P	P	2	P	P	P	1

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PER P	EC DEC	PER	PEL	PEL	PEL	ar.C	PER	<b>PEN</b>	1 6236	68-1	DEL	PER	PEL	PER	PEL	DEL	PER	PEL	PER A
Clause	F	Require	ement	t <del>+T</del> es	st	ari)	PED	RED	PED	PED	DEL	Res	ult - F	Remar	k	DEL	PER	V	erdict

į	5.4.9	TA DEP	ABLE	: Ele	ctric	stren	gth	tests	a FI	OFF.	OFFE 2	EP.	OF C	OFP.	OFF)	OFF.	DED!	OFF.	EÜ.	N/A	40
9	Test v	oltage a <sub>l</sub>	pplied	betw	een:					(Surge	Itage s e, Impu DC, etc	ılse,		Тє	est vo	ltage	(V)	В	reakd Yes /		100
Ò	DED.	DED DED	<b>PED</b>	<b>PED</b>	<b>PED</b>	<b>PED</b>	DED.	TO E.C.	OF D	<b>DED</b>	DED.	ED.	OED.	OFD.	<b>PED</b>	OFIC.	DED.	DED.	<b>PED</b>	DED.	48

#### Supplementary information:

- 1) Core of transformers is considered as floating conductor.
- 2) Tests after humidity treatment, heating test, and for unit primary to secondary, primary to enclosure electric strength after each fault condition test.
- 3) Tests were performed on product with each source listed in table 4.1.2.
- 4) The DC voltage source was performed on all testing once in forward and once in reverse.

إ	5.5.2.	2	T	ABLE	Sto	red d	lisch	arge	0	n c	apac	itors	P. 2	, O	P.O.	72 × 0.	2	72		12	ė.	١	I/A	1
<u> </u>	_ocation Supply voltage							ge (V	)	Op		ng an idition	d fault I <sup>1)</sup>			itch ition		VO	asure Itage /pk)		E	ES C	lass	
į					REC	PED	TO THE PERSON	ED.	\ \{\bar{4}	P	PED	PED	PEC 2	e P	PED	PER P	PE	REF	-	P	į.	PED -	RED	_
5		.O.			0									ó					-0		Ó.	0		

#### Supplementary information:

X-capacitors installed for testing:

- [ | bleeding resistor rating:
- [ ] ICX:
- 1) Normal operating condition (e.g., normal operation, or open fuse), SC= short circuit, OC= open circuit

5.6.6	PED.	2 T	ABLE	: Res	sistar	ice o	fpro	tecti	ve co	ndu	ctors	and	term	inatio	ons	PED	DED.	PER	P.E.C.	N/A	40
Locat	ion								currer A)	nt		Dura (mi			Volt	age (V)	drop	F	Resist Ω)		11.4
P	P	<b>D</b>	P	P	P	P	100	P	P	P	P	<b>D</b>	P	P	P	P	D.	450	P	P	1
P	RECE	arriv.	RECEI	PER	PER	RECEI		PER	- PER	RE	P	200	PER	PIC	PER	RE	200	PER .	P	REP.	12
Suppl	emer	ntary	infor	matio	n:					-											ŝ
P.	P	2	P	P	P	P	2	P	P	P	P	2	P	P	P	P	2	P	P	P	40

Ę	5.7.4	TABLE	ABLE: Unearthed accessible parts  Operating and Supply Parameters fault conditions Voltage (V)													
L	ocation	•	fault conditions Voltage (V)													
<u>}</u>			fault con	ditions	Voltage (V)	Voltage (V <sub>rms</sub> or V <sub>pk</sub> )	Current (A <sub>rms</sub> or A <sub>pk</sub> )	Freq. (Hz)	class							
	P. P.	De la constantina	P. P.	12 m	Q Q Q	10 2 10 10 10 10 10 10 10 10 10 10 10 10 10	10 10 10 10 10 10 10 10 10 10 10 10 10 1	<u> </u>	2							

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	a			٠.				. 490										.0000		
PELL	PEL	DEL	PER	PEL	PER	PER	DEL	PER	PEN	6236	68-1	DE.L.	PER	PEL	PER	PER	DEL	PER	PEL	PER
Claus	e	Re	equire	ement	t <del>+ T</del> e	st	DEL	PED	PED	RED	PED	aEL	Resu	ılt - R	temar	ka ED	DEL	PED	V	erdict
PEL	PEL	DEL.	PELL	PER	PEL	PEL	DEL.	PER	PEL	PEL	PEL	2	PER	PEL	PEL	PEL	DEL.	PEL	PEL	PELL
OFF.	OFF.	DED.	OFF.	OFF.	Que de la companya de	OED.	DED.	OFF.	OFF.	QEP.	OFF.		QED.	OFF.	OFF.	OED.	DE C	0 P	OED.	- FI
EQ.		ED.	eQ.	· CD	· CIV	· CD	EQ.	· CO	- ED	· Deli	EQ.	EQ.	· CD	ED	· CV	· CD	<u> </u>	· CD	e D	-
Supp	lemer	ntary	/ info	rmatic	n:															
Abbre	eviatio	on: S	SC= s	short	circuit	; OC	= op	en cii	rcuit	Par C	P	200	P	P	P.	Par di	2000	P. C.	P.	P. C

á <u>á á</u>				- 4						_	
5.7.5	TABLE: Earthed access	ible co	nductive	part 🍍						Park N	1/A
Supply volta	age (V)	PER	PER PER	PER DER	PER	PER	PER	DED DED	RED	PED -	PED
Phase(s)		[]Sin	gle Phas	e; [] Three	Pha	se: [ ]	Delta	[] Wye			
Power Distr	ibution System::	[] TN	[]TT	[],IT	No.	A.	20	D D	- CQ		
Location			Condition Condition	No in IEC 5.2.2	То	ouch c (m <i>l</i>	urrent A)		Comn	nent	
L/N to enclo	sure/ ground accessible	PED	PER PER	PER PER	PED	PEO.	PED		PED	PED	PED.
Supplement	tary Information:										
Ö. Ö. Ö.		AST.	The The	401× 20×	Par Ci.	Par Ci.	TO.	10 00 00	Par di	Par Ci.	Asia .

V V V	1- 1-		1- 1-	V- V-	1-	1- 1-								
5.8	Backfeed s	afeguard in battery	backed up s	upplies 🧀 .	PER PER PER	N/A								
Location  Supply voltage (V)  Condition  Supplementary information:  Supplementary information:														
_Q Q Q Q	10 (1 (1) (1) (1) (1) (1)	2 P P	P 2 2 P	@ @	9 P	P P.								
Supplementary inforr	mation:													
}														
Abbreviation: SC= sh	nort circuit, O	C= open circuit												

6.2.2 T	ABLE: Power source	circuit classificat	ions 🌯 🎺	PER PER	Per offi	See Bee
Location	Operating and fault condition	Voltage (V)	Current (A)	Max. Power <sup>1)</sup> (W)	Time (S)	PS class
All circuit			PER AFF	10 - 10 P	PER DE PER	PS2*

#### Supplementary information:

Abbreviation: SC= short circuit; OC= open circuit

1) Measured after 3 s for PS1 and measured after 5 s for PS2 and PS3.

Note: The secondary accessible signal terminals (eg: HDMI, audio/video, OPTICAL terminal...) are data transfer used, cannot load, no tests required.

\* This product is supplied by EN 62368-1 CB approved externa adaptor, the adaptor output is classified as PS2 circuit.

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#### Page 42 of 74

#### Report No.RED241217116003ED-AM-A

PELL	PER	DE	PEL	PEL	PER	PEL	a File	PEL	<b>PEN</b>	1 623	38-1	25.00	PER	PER	PEL	PER	DEL	PER	PEL	PER
Claus	e	R	equire	emen	t <del>† T</del> e	st	DEL	PED	PED	PER	PER	DEL	Res	ult <sup>e</sup> F	Remai	'kp	DED	PED	₹V	erdict

6.2.3.1 TABLE: Determi	nation of Arcing PIS		ALL OFF OFF OFF	N/A
Location	Open circuit voltage after 3 s (Vpk)	Measured r.m.s current (A)	Calculated value	Arcing PIS? Yes / No
See below O	Par Day Par Par	1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1		PP

#### Supplementary information:

#### Considered arcing PIS in all primary and secondary circuit.

An Arcing PIS requires a minimum of 50 V (peak) a.c. or d.c. An Arcing PIS is established when the product of the open circuit voltage  $(V_p)$  and normal operating condition rms current  $(I_{rms})$  is greater than 15.

į	6.2.3.2 TABLE: Determi	nation of resistive PIS		N/A
)	Location	Operating and fault condition	Dissipate power (W)	Arcing PIS? Yes / No
þ	All circuit of the ci		2000 APP 2000 APP 2000 APP 2000	Yes

#### Supplementary information:

Abbreviation: SC= short circuit; OC= open circuit.

#### Considered resistive PIS in all circuit.

A combination of voltmeter, VA and ammeter IA may be used instead of a wattmeter.

If a separate voltmeter and ammeter are used, the product of (VA x IA) is used to determine Resistive PIS classification.

A Resistive PIS: (a) dissipates more than 15 W, measured after 30 s of normal operation, <u>or</u> (b) under single fault conditions has either a power exceeding 100 W measured immediately after the introduction of the fault if electronic circuits, regulators or PTC devices are used, or has an available power exceeding 15 W measured 30 s after introduction of the fault.

8.5.5	TAE	BLE: Hi	gh pre	essure	lamp	a ED	OFIC.	a ED	a ED	OFF.	OED.	ario.	a ED	DED.	a ED	A COLOR	V/A
Lamp m	amp manufacturer				type			Explo	sion	meth	od		est a s par (mm)	ticle	be		found I 1 m No
<u>F</u>	EÜ EÜ		, ED	ED		, and	, A	- ED	ED	, ED	, all	, and		ED	(ED)		
Suppler	nentary ii	nformat	ion:														
721. 72	ED ED	ED SER	TO ED	721 2	EC POR	TOP:	TOP OF C	Par Par	ED.	Par C	Par CELL	THE CO	Par Co	E.C.	Part Co	721V	TOP .

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Page 43 of 74

Report No.RED241217116003ED-AM-A

C	PIE	PER	DE LE	PEL	PER	PIE	PEL	DEL	PER	7EN	6236	68-1	arily	PER	PILL	PILL	PEL	DELL	PER	PEL	PER
9	Claus	eage	R	equire	ement	t <del>†</del> Te	st	DEL	PER	PER	PED	PED	DEL	Res	ult <sup>2</sup> F	Remar	k	DEL	PED	V	erdict

PER PER DER PER	PER PER A	aff aff	P 10 10 10	TO PER DELL	PER PER	PER PER	DELL DELL	PER PER
9.6 TABLE	Temperat	ure meası	urements	for wireles	s power t	ransmitter	S	Р
Supply voltage (V)			: 5V			en en	ED ED	_
Max. transmit power	of transmit	ter (W)	: 5W	0 00 0	The second		0 0	_
	w/o recei direct c			eiver and contact		ver and at of 2 mm		ver and at of 5 mm
Foreign objects	Object (°C)	Ambient (°C)	Object (°C)	Ambient (°C)	Object (°C)	Ambient (°C)	Object (°C)	Ambient (°C)
Of On St. On		20 20 72	P P	<b>1 1 2 1 1 1 1 1 1 1 1 1 1</b>	P. P.	A A	200	Print Print
PER PER SER PER	PER PER	affi affi	C PER P	C PED DED	PER PER	PER PER	DED PED	PED PED
all all all all	OFFI OFFI	affi affi		C PED DED	OFF. OFF.	THE THE	affi affi	OFF. OFF.
	ari ari	agi agi		e are are	age age	ari ari	JED JED	
Supplementary inforr	nation:							
de de de de	12" 12" 1	2 2 42 42 A	Q21	0 0 0	72" 72"	The The	20 A	Asia Asia

		~67/ ~67/	~ (Y)		· CAL CAL	C		SY -6Y -6Y	~67/ ~67/
5.4.1.4, 9.3, B.1.5,	TABLE: Temper	ature mea	asuremen	ts					Р
B.2.6									
Supply volta	age (V)		:	5V	DED - DED	· OED			
Ambient ten	nperature during to	est $T_{ m amb}$ (°0	C):		<u> </u>	SEQ.		9 Q Q	
Maximum m	neasured temperat	ture <i>T</i> of p	art/at:		T	(°C)			Allowed T <sub>max</sub> (°C)
PCB 🛷 💉	D PORT PORT PORT	PED DED	PER PER	46.6	2ED 2ED	PED	TELL PO	C DEP - PER	<del>~</del> 130
Battery		0 0		32.3	a a	, 	-0	0 0 0	
LED panel		451 ST		27.6	O	Q.	70° 70°		- P
Plastic encl	osure **	Q Q		26.1		P.	<u>P</u>		77
Ambient		Part of the same	Part Part	25.0	_ P	PER		<u> </u>	P P.
Temperatur	e T of winding:	t <sub>1</sub> (°C)	R <sub>1</sub> (Ω)	t <sub>2</sub> (°C)	$R_2(\Omega)$	-	T (°C)	Allowed T <sub>max</sub> (°C)	Insulation class
THE THE SE	E PER PER PER	PER DER	PER -PER	OFFI -OFFI		P. P.	POP PO	O PED- OFF	PER - PER

#### Supplementary information:

- Note 1: The apparatus was submitted and evaluated for maximum manufacturer's recommended ambient (Tma) of 25°C.
- Note 2: The temperatures were measured under the worse case normal mode defined in clause B.2.1.
- Note 3. Temperature limits are calculated as follows:

Winding components providing safety isolation:

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<sup>\*</sup>Temperature limit for TS1 of accessible enclosure according to Table 38.

#### Page 44 of 74

#### Report No.RED241217116003ED-AM-A

C	PEL	PEL	a File	PER	PIED	PER	PEL	DELL	PER	₹EN	6236	68-1	a File	PER	PER	PIEL	PER	DELL	PED	PER	PER
P	Claus	eper	R	equire	ement	t <del>+</del> Te	st	DEP	PED	PED	PED	PER	DEL	Res	ult F	Remar	k	DED	PER	V	erdict

B.2.5	T.	ABLE: Inpu	ut test					P
U (V)	Hz	I (A)	I rated (A)	P (W)	P rated (W)	Fuse No	I fuse (A)	Condition/status
<b>75</b>	OED -DED	0.5	0.5	7 30 EP	PER PER DER P		P PER DER	PER PER PER

#### Supplementary information:

Equipment may be have rated current or rated power or both. Both should be measured.

B.3, B.4 TA	BLE: Abnorn	nal operating	and fault	condition	tests 🛷	all all all all per								
Ambient tempera	ature T <sub>amb</sub> (°C	S) 📣 🔌 🧀	· pi		25°C, if n	oot specified — —								
Power source fo	r EUT: Manu	facturer, model	/type, out	putrating	PAR PRICE									
Component No. Condition Supply voltage (V) Test time Fuse no. Fuse current (A) Unit power and current of														
Speaker		Fully	10mins			Unit power and current drop down. No hazards observed, all safeguards remained effective during and after abnormal condition.								
		battery	PRICE PRICE			Battery discharge current: 0.45A								
		Fully				Unit normal operation, no hazards observed, all safeguards remained effective during and after abnormal condition.								
Speaker	max. non clipped	charged battery	2hrs12 mins		PER PER	Plastic enclosure outside near battery:28.7°C; Ambient: 25.0°C								
			Parti Parti			Battery discharge current: 1.56A.								

#### Supplementary information:

- 1) S-C: Short circuit; O-C: Open circuit; O-L: Overloaded.
- 2) The test result shown all safeguards remained effective and didn't lead to a single fault condition during abnormal operating condition; In addition all safeguards complied with applicable requirements in this standard after restoration of normal operating conditions.
- 3) The test result showed no Class 1 or 2 energy source become Class 3 level during and after single fault condition.
- 4) The overloaded condition is applied according to annex G.5.3.3.

Winding Limit for transformer: 175-10=165°C.

,	-	,	,	,	-	,	,	,	-	,	,	,	,		,		
M.3	(P) (P)	TABI	_E: Pr	otec	tion c	ircuits f	or ba	tteries	s prov	ided v	vithin	the e	quip	ment		EQ.	P

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TRF: IEC/EN62368-1-2018-V2

hazard.

Battery normal

discharge, no hazard.

Battery discharge

current up, no

hazard.

ı	RED Laborator	ies inc.	Y Y	-ag₀	e 45 of 74		Rep	ort No	0.KEU24	41217116	003	ED-AM-A
	PETE PETE DELL	WELL WELL	Party Street Street	PER	EN 623	68-1	PE	PER	PEL	OFFE DEED A	PED	PELL PELL
į	Clause	Requirement	+Test	PED	PIET PET	PED DED	Re	sult -	Remark	DEED DEED	PED.	Verdict
7	PER PER DEP	PER PER	PARTY PARTY DEED	PEL	PER PER	PAFFE DEP	PE	PELL	PER	PER DER 4	PER	PER PER
	Is it possible t	o install the	battery in a rev	ers	e polarity p	osition?		<b>OFF</b>	<b>PED</b>	DEC DEC	aki.	<u> </u>
						Ch	nargi	ng				
	Equipment S	pecification		Vo	oltage (V)					Current (/	A)	
			120 120 20 C	Par Ci	5	(i) (i)	122	i Pi	Par s	0.5	Par Ci	All All
						Battery	spec	ification	on			
			Non-recharge	able	batteries			Rech	argeabl	e batteries	s	
			Discharging		ntentional	C	Char	ging		Dischargi		Reverse
	Manufactu	ırer/type	current (A)		harging ırrent (A)	Voltage (	(V)	Curr	ent (A)	current (	A)	charging current (A)
	See table	e 4.1.2	OFFI OFFI	OFF.		1.8	Q[I]	QE C	0.3	0.3	aric.	ari ari
	Note: The test	ts of M.3.2 a	re applicable or	าly v	vhen above	e appropria	ate d	lata is	not ava	ilable.		
	Specified batt	ery tempera	ture (°C)	- di	0 0	00 00		20	2	5.0	0	V
	Component No.	Fault condition	Charge/ discharge mo	de	Test time	Temp. (°C)		rrent A)	Voltage (V)	e OI	bser	vation
	Service Services	PER PER	Series Series	PEL	PER PER	Cell:	PE	PE	PELL	OF DELL	OFF.	PELL PELL
	Normal condition	PED - PED	Charge mod	le 🔑	2h46min	32.3 Amb:	<b>0</b>	56	4.19	Battery charging		mal o hazard.
	PED PED DED	PED DED	PER PER DER	PER	PET PET	25.0	PER	PER	PED.	OFFI DEED	OFIC.	RED RED
	IIO pin 3.4	PART PART	Charge mad	PED	7b	Cell: 32.8	PE	PEF.	1 10	Battery		, , , , , , , , , , , , , , , , , , ,

#### Supplementary information:

SC

Normal

condition

U1 pin 16-

12

Abbreviation: SC= short circuit; OC= open circuit NL= no chemical leakage; NS= no spillage of liquid; NE= no explosion; NF= no emission of flame or expulsion of molten metal.

7h

2hrs30

mins

Amb:

25.0 Cell: 34.2

Amb: 25.0 Cell:

33.2

Amb:

25.0

1.26

1.18

4.20

4.19

2	M.4.2	TABLE: Charging safeguards for equipment containing a secondary lithium	Raffin .
Ó		battery and a solution of the	

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Discharge mode

Discharge mode

Page 46 of 74

Report No.RED241217116003ED-AM-A

RED Laboratories Inc	Stan day day	Page 46 c	of 74	Report No.R	ED241217116003E	D-AM-A
Party Delly Delly Delly	PER PER PER	PEN PEN	N 62368-1	PER PER A		PER PER
Clause Require	ement + Test	DEP PER PER	Self Self Del	Result - Re	mark 🕬 🦸 🛷 🧸	Verdict
	pli pli pli		Q[] Q[] 2[]			2 <sup>(1)</sup>
Maximum specified	charging voltag	e (V)	Q Q 2	1011 1011 14	aff aff aff aff.	_
Maximum specified	charging currer	nt (A)		: 0.5		
Highest specified ch	narging tempera	ture (°C)		: 45~50°C	0 0 0 0	
Lowest specified ch	arging temperat	ture (°C)	42° 42° 2°	: -5~0°C		
Battery	Operating		Measurement		Observation	n
manufacturer/type	and fault condition	Charging voltage (V)	Charging current (A)	Temp.		
See table 4.1.2	Normal	3.7	0.5	44.6	Battery normal cha when cell temperat 49.6°C, unit stop c	ure up to
See table 4.1.2	U9 pin 3-4 SC	3.7	0.5	44.9	Battery normal cha when cell temperat 45.8°C, unit stop c	ure up to
See table 4.1.2	Normal	3.7	70.5 P	-0.5 P	Battery normal cha when ambient belo unit stop charging.	
See table 4.1.2	U9 pin 3-4 SC	3.7	0.5	-0.9	Battery normal cha when ambient belo unit stop charging.	
Supplementary infor	mation:					

Abbreviation: SC= short circuit; OC= open circuit; MSCV= maximum specified charging voltage; MSCC= maximum specified charging current; HSCT= highest specified charging temperature; LSCT= lowest specified charging temperature

Q.1	TABL	.E: Cir	cuits	inter	nded	l for i	nter	conne	ction	ı wi	th bu	ildi	ng	wiri	ng (	LPS)		1	V/A
Output		Condi	tion			J <sub>oc</sub> (V	`	Time	(c)		ı	sc (	A)				S (V	A)	
Circuit		Condi	uon			Joc (V	,	111116	(3)	N	leas.		ı	Limit		Meas		Li	mit
PELL PELL	ED PE	PED	RED	RED	DED	RED	PE	PED-	PED	DED	RED	P	P	RICO.	P	1 2ED P	ED.	arc.	PER
-OFF		PED	PER	RED	DED	P.C.	P	PED-	PED.	DED.	RED.	7	P	P. C.	P	2 mil 12	ED.	affi.	- PER
			OFF.	OED.	DED!	OFC.	a E	) <u>(1) - (1)</u>	OED.	DED.	- C	6	P	OED)		) <u>( ) ( )</u>	EQ.	arc.	OFP.
Supplement																			

T.2, T.3, T.4, T.5	TABL	E: Stea	dy force	etest	PER	PER.	PED.	P. P.	aED.	RED	PER	PED!	P. P.	aric)	PER	THE THE PERSON NAMED IN	P	100
Part/Loca	tion		Materia	I	Tł	nickne (mm)		Pro	be		orce N)	Du	est ratior (s)	ו	Obs	serva	tion	12 12 12 12 12 12 12 12 12 12 12 12 12 1

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#### Page 47 of 74

## Report No.RED241217116003ED-AM-A

Ç.	PER	PEL	DEL	PER	PER	PER	PER	DEL	PEL	₹EN	6236	68-1	a Filip	PEL	PER	PER	PED	affi	PER	REL	PER
9	Claus	eper	R	equire	emen	t <del>+</del> Te	st	DED	PED	PED	PED	PED	DED	Res	ult F	Remar	'kp	DED	RED	V	erdict

																					→
Pla	astic enc	losure	EC		Pla	stic		<b>DED</b>	1.5	PE	PER	- DED	PED 1	00	PED	5	2/2	No	dama	ige	2
C P	arci projecti	2/10	, C	P	RIC	PRI	200	P	RIC	P	Q (0)	2/50	P.C.	RIC	PIO	RIP	200	RIC	RIC	PAR	12
Ö P		260	DEP.	PRI	REE	PER	2500	(DEP	PER	P	PER	2000	PRIN	PER	PER	PER	2	REP	PER	REC	2

## Supplementary information:

\*Tests were performed on product with each source listed in table 4.1.2.

T.6, T.9	TABLI	E: lmp	act to	est	12	72	72	(2) 2)·		12	<b>12</b>	72	72	2	72	,	N/A
Location/pa	art			Mate	erial			ickness (mm)	3		eight nm)	Observation					
Je. Je.	4. 74.	14.	70"	70. 0.	74.	10.	1/4	70. 0		70.	74	76	74	2.	74"	74	10.
	D D		O CO	Q Q	, S	O C	1000	- C	Ç.			JO.	000	56°		O O	O.O.
0 0	-		Ö	0 0	- 0		Ö	-0	Ċ	Ö		Ó			-0		
Supplementary information:																	
*Tests were performed on product with each source listed in table 4.1.2.																	

T.7 TABLE: Dro Location/part	pp test Material	Thickness (mm)	Height (mm)	Observation							
Plastic enclosure	Plastic A	1,5	1000	No damage							
all all all all	200 AP 200 - 200 AP		10 - 10 M								
Supplementary information:											
*Tests were performed on product with each source listed in table 4.1.2.											

T.8 TABLE	: Stress relief to	est of the state o		Q Q	P
Location/Part	Material	Thickness (mm)	Oven Temperature (°C)	Duration (h)	Observation
Plastic enclosure	Plastic	1.0	70	per per	Enclosure remained intact, no crack/ opening developed. No hazards.
Supplementary infor	notion			@ <u>/</u> / @ <u>/</u> /	

# Supplementary information:

\*Tests were performed on product with each source listed in table 4.1.2.

X TABLE: Alternative method for determining minimum clearances distances N/A												
Clearance distanced	Peak of working voltage	Required cl	Measured cl									
between:	(V)	(mm)										

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TRF: IEC/EN62368-1-2018-V2

#### Page 48 of 74

Report No.RED241217116003ED-AM-A

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TED Editoriation of inc.								· ugu	, 100			TOPORTION LEBETTETT TOOGGED 7 WI								
PELL	PEL	DEL	PEL	PEL	PEL	PEL	DEL	PER	<b>PEN</b>	6236	8-1	DEL	PER	PEL	REL	PEL	DEL	PEL	PEL	PER
Claus	e	Re	equire	emen	t <del>+</del> Te	st	DED	PED	PED	PED	PED	DEL	Res	ult - F	Remar	ko 🖳	DEL	PED	V	erdict
PELL	PEL	aff.	PELL	PEL	PELL	PEL	DEL.	PELL	PEL	PEL	PEL	aff.	PELL	PEL	PEL	PEL	DEL.	PEL	PEL	PELL
OED.	a ED	DED!	a FI	a ED	OFD.	a FI	a ED	OED.	ard.	OFF.	a FID	DED!	OED.	ard.	OFF.	OF D	DED!	OFF.	a FP	OFF.
Supp	leme	ntary	/ infor	matic	n:															
12.	72	20	15	12	10	72	4	15	15	72	72	4	15	15	10	10	4	12	10	12
20																				,Ó,

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RE	D Laboratories Inc.	Page 49 of 74	Report No.RED241217116003ED-AM-A
PER		<b>EN 62368-1</b>	
Clause	e Requirement + Te	stop of of of	Result - Remark

450 ASS 500 ASS		in the time the	Line The Line Line	450 ASS 500 A	Jan 25 25 4
4.1.2 TAB	LE: Critical compo	nents information	affi affi affi		Pui Pui
Object / part No.	Manufacturer/ trademark	Type / model	Technical data	Standard	Mark(s) of conformity <sup>1)</sup>
Plastic enclosure	Fujian Huasu	HS12(aa)T (f1), HCF101W(aa)F	PC, V-0, 125°C, min.	UL 94 0 0 0	
	Plastics Material Co Ltd	(f1)	thickness: 1.0mm		
(Alternative)	CHIMEI	PA-757(+), PA-	HB, 80°C, min.	UL 94	UL 🥍 🧖
PORT PORT PO	CORPORATION	757K(+)	thickness: 1.5mm	PORT PORT OF	
PCB PCB	Shenzhen	LTS06 V	V-0, 130°C	UL 796 💜 🍍 🔞	ÜL 🥙 💎 🕆
PER PER DER P	LongTeng Electric	IL PEL PEL PEL	TOPE SEE THE TOPE	PER PER A	
PORT PRINT OF PORT	circuit Technology Co Ltd	DE PORT PORT PORT	POETE DEED POETE POETE		
(Alternative)	Interchangeable	Interchangeable	Min. V-1 or	UL 796 🛷 🖋 🧳	UL OFF OFF
POPE POPE SERVICE			better, Min.105°C		
Internal wire	Interchangeable	Interchangeable	VW-1, 80°C, 300V, min. 24AWG	UL 758	ÜL A

#### Supplementary information:

- 1) Provided evidence ensures the agreed level of compliance. See OD-CB2039.
- 2) Description line content is optional. Main line description needs to clearly detail the component used for testing.

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RED Lab	oratories Inc.	Page 50 of 74	Report No.RED241217116003ED	D-AM-A
0 00 00		EN 62368-1		
Clause	Requirement + Test		Result - Remark	Verdict

#### Attachment 1

# ATTACHMENT TO TEST REPORT EN62368EUROPEAN GROUP DIFFERENCES AND NATIONAL DIFFERENCES

(Audio/video, information and communication technology equipment - Part 1: Safety requirements)

Differences according to..... EN 62368-1:2020+C161:2020

Attachment Form No...... EU\_GD\_IEC62368\_1E

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- CV - CV	eneva, Switzerland. All rights reserved.	-00
P P	CENELEC COMMON MODIFICATIONS (EN)	P
	Clause numbers in the cells that are shaded light grey are clause references in EN 62368-1:2020+C161:2020. All other clause numbers in that column, except for those in the paragraph below, refers to EN 62368-1:2018.	P <sup>E</sup>
	I AP	
	Clauses, subclauses, notes, tables, figures and annexes which are additional to those in EN 62368-1:2018 are prefixed "Z".	
PELL PELL	Add the following annexes:  Annex ZA (normative)  Normative references to international publications  with their corresponding European publications	PER
	Annex ZB (normative)  Annex ZC (informative)  Annex ZD (informative)  Annex ZD (informative)  Special national conditions  A-deviations  IEC and CENELEC code designations for flexible	
	cords cords	
	Modification to Clause 3 .	N/A
.3.19	Sound exposure	V/A
	· · · · · · · · · · · · · · · · · · ·	
PER PER	Replace 3.3.19 of EN 62368-1 with the following definitions:	Die.
.3.19.1		V/A
3.19.1		V/A
3.19.1 (P)	momentary exposure level, MEL metric for estimating 1 s sound exposure level from the HD 483-1 S2 test signal applied to both channels, based on EN 50332-1:2013, 4.2.	V/A
3.19.1 P	momentary exposure level, MEL metric for estimating 1 s sound exposure level from the HD 483-1 S2 test signal applied to both channels, based	

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RED TESTING AND												
RED Lat	Page 51 of 74 EN 62368-1	Report	No.RE	D241	217110	6003E	ED-A	M-A				
Clause	Requirement + Test	Resu	lt - Ren	nark			1	/erdict				
PER PER		PER	PER P	P	DEL DEL	PER	PER	PIER T				
3.3.19.3	sound exposure, E	PER	PER P	EP F	DEL DEL	PED	PIC	N/A				
C OFFI	THE OFF OFF OFF OFF OFF OFF OFF OFF	OED.					OF C	OED.				
0 20 20	A-weighted sound pressure (p) squared and integrate	ed					Ċ.	0				
P P	over a stated period of time, T	P					R	P 4				
PER PER		PER					P	PER A				
PER PER	Note 1 to entry: The SI unit is Pa <sup>2</sup> s.	PED					PER	PED.				
PER PER	$E = \int_{-\infty}^{\infty} \alpha(\Delta^2 dA)^{2} dA$	PED					PIC	PED.				
PER PER	$E = \int_{0}^{\infty} p(t)^{2} dt$	PED					PIL	Parity 4				
3.3.19.4	sound exposure level, SEL	<b>PED</b>	PER P	P F	DED DED	OFF.	Par Ci	N/A				
C ED ED		EC					, C	, GEO				
1 10 10 10 10 10 10 10 10 10 10 10 10 10	logarithmic measure of sound exposure relative to a	Zav.					727	72" 1				
Part Part	reference value, E <sub>0</sub> , typically the 1 kHz	PER					P	PER 4				
PER PER	threshold of hearing in humans.	PED					PIL	PER 1				
DED DED	OF ADD ADD ADD ADD ADD ADD ADD ADD ADD AD	RED					PATE !	PED.				
C PER PER	Note 1 to entry: SEL is measured as A-weighted levels in dB.	PED					PIC	PED. 4				
C OED OED		OED.					OF C.	OED.				
	$SEL = 10 \lg \left(\frac{E}{E_0}\right) dB$	DED.					W.C.	OED!				
S THE THE	OF ACT ACT ACT ACT ACT ACT ACT	PED					PIL	PED!				
	Note 2 to entry: See B.4 of EN 50332-3:2017 for additional	OED.						OED.				
0 20 20	information.	a C					I O	D.				
3.3.19.5	digital signal level relative to full scale, dBFS	1217	Per P	4	J. J.	TO STATE OF THE PARTY OF THE PA	1/2	N/A				
PER PER		PEL					P	POEL A				
DEED PORT	levels reported in dBFS are always r.m.s. Full scale level, 0 dBFS, is the level of a dc-free 997-	PED					PER	Parity 4				
PED PED	Hz sine wave whose undithered positive peak value i	Special					PIC	PER A				
S OFF	positive digital full scale, leaving the code	OED.										
0 0 0	corresponding to negative digital full scale unused	, O					Ö	74" 1				
Par Par		(2) A.					R	P				
PER PER	Note 1 to entry: It is invalid to use dBFS for non-r.m.s. levels. Because of full people is based as a singular ways the level of singular and a facilities of full people is based as a singular ways.	15.					PIL	PED 1				
PER PER	the definition of full scale is based on a sine wave, the level of sign with a crest factor lower than that of a sine wave may exceed 0 dB	10 V					P	PED 4				
DED DED	In particular, square wave signals may reach +3,01 dBFS.	PED:					PATE.	PED.				
2 2 2		, .	, V				*					

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RED Laborate	ories Inc.	O.E.D.	Page 52	of 74	OED OED	Report No	RED24121711	6003E	D-AM-A
0. 0. 0.				EN 6	52368-1				0 0
Clause Rec	uirement + Te	est	2/	P. C.	Paris Paris	Result -	Remark	P. A	Verdict

PRI PRI		PER	RED	PER	260	PER	PER	PER	
2	Modification to Clause 10					,		N/A	
10.6	Safeguards against acoustic energy sources	OED.	OED.	OFF.	DED.	OFF.		N/A	40
0 0	Replace 10.6 of EN 62368-1 with the following:						, C		
10.6.1.1	Introduction	R	<del>P</del>	<del>Q</del>		<del>P</del> V	<b>R</b>	N/A	-
PER PER	Safeguard requirements for protection against long-	REL					P		4
PED PED	term exposure to excessive sound pressure	PED					P		1
PER PER	levels from personal music players closely coupled to the ear are specified below. Requirements	PED					PIL		1
PED PED	for earphones and Intelligent Watch intended for use	PED					PIC		4
, ,	with personal music players are also covered.	Ò					·		
PER PER	A personal music player is a portable equipment	PE					P		1
PER PER	intended for use by an <b>ordinary person</b> , that:	RED					PI		40
POED POED	<ul> <li>is designed to allow the user to listen to audio or audiovisual content / material; and</li> </ul>	PED					P		1
DED DED	uses a listening device, such as Intelligent Watch or	<b>PED</b>					P.C.		40
en en	earphones that can be worn in or on or around the ears;								
Tan Tan	and a second sec	TAIL DE C					727		12
1 0 0	<ul> <li>has a player that can be body worn (of a size suitable to be carried in a clothing pocket) and is intended for the</li> </ul>	THE O					Jar O		7
Par Par	user to walk around with while in continuous use (for	P					P		4
PER PER	example, on a street, in a subway, at an airport, etc.).	PER					PER		4
OFFE OFFE	EXAMPLES Portable CD players, MP3 audio players, SMART	QED.					Q P		40
0 0	PAGER s with MP3 type features, PDAs or similar equipment.	-0					40		
	Personal music players shall comply with the	Plan					121m		42
PER PER	requirements of either 10.6.2 or 10.6.3.	PELL					P		1
PED PED	NOTE 1 Protection against acoustic energy sources from telecom applications is referenced to ITU-T P.360.	RED					PIC		4
, ,	NOTE 2 It is the intention of the Committee to allow the alternative	·					,		
PER PER	methods for now, but to only use the dose measurement method as	P					P		1
PER PER	given in 10.6.5 in future. Therefore, manufacturers are encouraged to	RED					PER		4
DED DED	implement 10.6.5 as soon as possible.	OED.							46
0 0	Listening devices sold separately shall comply with the requirements of 10.6.6. These requirements are valid	CQ.					Ċ		
	for music or video mode only.	R	P	P	2	P	P	R	4
PER PER	The requirements do not apply to:	PEL					P		1
PER PER	– professional equipment;	PEL					P		1
PER PER	NOTE 3 Professional equipment is equipment sold through special	PED					PER		42
ED SED	sales channels. All products sold through normal electronics stores	ED.					Ó		
Ter Ter	are considered not to be professional equipment.	120					TE C		42
PER PER	- hearing aid equipment and other devices for assistive	P					P		1
PER PER	listening;  – the following type of analogue personal music players:	RED					PI		4
OFFE OFFE	Ing distance radio receiver (for example, a multiband)	OED.					@ P		46
0 0	radio receiver or world band radio receiver, an AM radio	_0					0		
P. P.	receiver), and	P					P		1
i		- i	Ó	Ó	Ó	Ó	- i	Ó	_

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o ,	RE	ED La	boratorie	es Inc.	PED	RED	P	age 5	3 of 7	'4 I 6236	58-1	ard)	Repor	t No.	RED2	24121	711	60031	ED-A	M-A
С	laus	e	Require	ement	t + Te	st	200	P	P	P	P	2	Res	ult - F	Remai	rk	200	P		√erdict
1	P	P	DE 1	P	P	P	2	P	P	P	P	2	P	P	P	P	2	P	P	P. A
	PER	PER	• casse	ette pla	ayer/r	ecor	der;	PER	PER	PER	PER	DE C	PER	PED	PER	PER	DEL.	PER	P	PED 4

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Clause	Requirement + Test	Result -	Remar	k	31.	P	1	/erdic
PER PER		PER PER	P	P	200	P	P	PE
ont'd	NOTE 4 This exemption has been allowed because this technology	/is					P	N/A
	falling out of use and it is expected that within a few years it will no	OFF OFF					W.C.	
	longer exist. This exemption will not be extended to other	0.0					Ö.	
	technologies.	Part Part					P	
	- a player while connected to an external amplifier that	at p					QV.C.	
	does not allow the user to walk around while in use.	0					0	
	For equipment that is clearly designed or intended	P P					P	
	primarily for use by children, the limits of the relevant	PER PER					PAR	
	toy standards may apply. The relevant requirements a	are					-40	
	given in EN 71-1: 2011, 4.20 and the related tests	A P					P	
-0 -0	methods and measurement distances apply.	_00 _00	-00	-00	-00	-00	- 0	
0.6.1.2	Non-ionizing radiation from radio frequencies in the	he 🏻 🥙	P	R	51	Par	12°	N/A
	range 0 to 300 GHz / / / / / / /	PER PER					P	
	The amount of non-ionizing radiation is regulated by	eg eg					O.	
	European Council Recommendation 1999/519/EC of	12					Pall	
	July 1999 on the limitation of exposure of the general	PEL PEL					P	
	public to electromagnetic fields (0 Hz to 300 GHz).	ec ec					O.	
	For intentional radiators, ICNIRP guidelines should be	Par Par					Tall V	
	taken into account for Limiting Exposure to Time-	Part Part					P	
	Varying Electric, Magnetic, and Electromagnetic Field	Sep Per					PIE	
	(up to 300 GHz). For hand-held and body mounted	000					-40	
Par Par	devices, attention is drawn to EN 50360 and EN 5056		P	P	2000	12×	P	P
0.6.2	Classification of devices without the capacity to e	stimate	sound	dos	e	PELL	P	N/A
0.6.2.1	General A A A A A A A	OFFI OFFI					@ C	N/A
	This standard is transitioning from short-term based (3 s) requirements to long-term based (40 hour)	30					Q (C)	
	requirements. These clauses remain in effect only for	100					, c	
	devices that do not comply with sound dose estimation	n P					P	
	as stipulated in EN 50332-3.							
	For classifying the acoustic output $L_{Aeq}$ ,	P. P.					P	
	measurements are based on the A-weighted equivale	nt <sup>®</sup>					PIC	
	sound pressure level over a 30 s period.	-CO					C.	
Per Per	For music where the average sound pressure (long te	erm 7	P	R	21	Par	P	
	$L$ Aeq, $\tau$ ) measured over the duration of the song is lower						P	
	than the average produced by the programme	ec ec					O.	
	simulation noise, measurements may be done over the	ie o					Tall V	
	duration of the complete song. In this case, $T$ become	es					P	
	the duration of the song.	PER PER					P	
	NOTE Classical music, acoustic music and broadcast typically has	ano						
	average sound pressure (long term LAeq, 7) which is much lower that	in P			21	Par	72	
	the average programme simulation noise. Therefore, if the player is	SOFE PER					P	
	capable to analyse the content and compare it with the programme	- C					Q,	
	simulation noise, the warning does not need to be given as long as	TO TO	P	12	51	P	72	
		rod					OF P	
	the average sound pressure of the song does not exceed the requi	Le Le					10	
	limit. For example, if the player is set with the programme simulation	n					, C	
	le	n					PIC	

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Clause	Requirement + Test	Result -	Rema	rk			1	erdic/
PER PER		REP. RE	REFER	PER	DEP	PER	PER	PER
	long as the average sound level of the song is not above the basic	PER PE					P	
	limit of 85 dB.	and and		TO STATE OF THE PARTY OF THE PA	Q.	200	Q C	OF C
0.6.2.2	RS1 limits (to be superseded, see 10.6.3.2)	00					40	N/A
		P. P.					P	
	RS1 is a class 1 acoustic energy source that does no	ote 🧖					PIC	
	exceed the following:	e di					O C	
	– for equipment provided as a package (player with it	ts					74	
	listening device), and with a proprietary connector	PEL PE					P	
	between the player and its listening device, or where						@[C	
	combination of player and listening device is known to	1					,	
	other means such as setting or automatic detection, the LAeq, $\tau$ acoustic output shall be $\leq 85$ dB when playing	_0 × / 0					Q C	
	fixed "programme simulation noise" described in EN	uie .						
	50332-1.	P					P	
	for equipment provided with a standardized connection.	tor P					P	
	(for example, a 3,5 phone jack) that allows connection						Q.	
	to a listening device for general use, the unweighted	- 40 M					P.III	
	r.m.s. output voltage shall be ≤ 27 mV (analogue	PEL PE					P	
	interface) or -25 dBFS (digital interface) when playing	] PEP PE					P	
	the fixed "programme simulation noise" described in	EN					Q.	
	50332-1.	And And				Per	PI	
	- The RS1 limits will be updated for all devices as pe	Profession of	PELL				P	
EC. EC.	10.6.3.2.	aci aci	Ö GÖ	a ED	EQ.	OED.	Q.	a E
0.6.2.3	RS2 limits (to be superseded, see 10.6.3.3)	Q. A					Ö	N/A
	RS2 is a class 2 acoustic energy source that does no	ot Project					P	
	exceed the following:	PED PE					P	
	- for equipment provided as a package (player with it	ts					Q.	
	listening device), and with a proprietary connector	12 12 12 12 12 12 12 12 12 12 12 12 12 1					721	
	between the player and its listening device, or when	~6V/ ~6					Ć.	
	combination of player and listening device is known b						721	
	other means such as setting or automatic 130 detect	1-					P	
	the $L_{Aeq}$ , $\tau$ acoustic output shall be $\leq 100$ dB(A) when	OED OF					O C	
	playing the fixed "programme simulation noise" as described in EN 50332-1.	C F					Ö	
	मा विद्या विद्या विद्या विद्या मा विद्या विद्या विद्या मा	PET PE					P	
	- for equipment provided with a standardized connection (for example, a 3,5 phone jack) that allows connection	6V/ 6					Q C	
	to a listening device for general use, the unweighted	aft)						
	r.m.s. output voltage shall be ≤ 150 mV (analogue	CO.					Ö	
	interface) or -10 dBFS (digital interface) when playing	70 70					P	
	the fixed "programme simulation noise" as described						@ C	
	EN 50332-1.	0					,	
0.6.2.4	RS3 limits	P. P.	P	P	2	P	P	N/A
REP REP	RS3 is a class 3 acoustic energy source that exceeds	PED PE					PI	PE
	RS2 limits.						C C	
DIV DV	The transfer that the transfer the transfer that	W. O.	2	P.	51/2	12	P	R
0.6.3	Classification of devices (new)							N/A



RED La	Page 56 of 74 EN 62368-1	ort No.I	RED2	24121	7110	6003E	ED-A	M-A
Clause	Requirement + Test Re	esult - F	Remar	k	2	R	V	erdic
PER PER			P	PER	2/2	P	P	PER
	Previous limits (10.6.2) created abundant false negative	P					P	
	and false positive PMP sound level warnings. New	D OFF					aric.	
	limits, compliant with The Commission Decision of 23  June 2009, are given below.	0 0						
			P	P	2//	P	P	NI/A
0.6.3.2	RS1 limits (new)	PEL					P	N/A
	RS1 is a class 1 acoustic energy source that does not	D OFF					OF C	
	exceed the following:						N-O	
	- for equipment provided as a package (player with its	P					P	
	listening device), and with a proprietary connector between the player and its listening device, or where the	D OFF					Par Co	
	combination of player and listening device, of where the	,					,	
	other means such as setting or automatic detection, the	DE PER					PER	
	LAeq, <i>t</i> acoustic output shall be ≤ 80 dB when playing the	_ I						
De De	fixed "programme simulation noise" described in EN	Par Care	Paris	P	21	P	P.	
	50332-1 0 0 0 0 0 0 0 0	DE PER					PER	
	- for equipment provided with a standardized connector	D ED					OF D	
	(for example, a 3,5 phone jack) that allows connection	o Ter					Je.	
PEL PEL	to a listening device for general use, the unweighted	PE	PE	PELL	2	PEL	P	
	r.m.s. output voltage shall be ≤ 15 mV (analogue 🎻	DEL.					PER	
	interface) or -30 dBFS (digital interface) when playing	D ED					OF C	
	the fixed "programme simulation noise" described in EN	7200					727	
PER PER	50332-1.	PELL	PELL	PELL	2	PELL	P	PE
0.6.3.3	RS2 limits (new)	D OFF					OF C	N/A
	RS2 is a class 2 acoustic energy source that does not	0 0					40	
	exceed the following:						P	
	- for equipment provided as a package (player with its	DED.					PIL	
	listening device), and with a proprietary connector	D CD					O.C.	
	between the player and its listening device, or where the	e 721					1200	
	combination of player and listening device is known by other means such as setting or automatic detection, the	D ED					OF C	
	weekly sound exposure level, as described in EN	2(20%					727	
	50332-3, shall be ≤ 80 dB when playing the fixed	PELL					P	
	"programme simulation noise" described in EN 50332-1	DED.					OF C	
	- for equipment provided with a standardized connector	,					Ö.	
	(for example, a 3,5 phone jack) that allows connection	P					P	
	to a listening device for general use, the unweighted	D OFF					Propins of the second	
	r.m.s. output level, integrated over one week, as	DED.					OF C	
	described in EN50332-3, shall be ≤ 15 mV (analogue	0 0					Ö	
	interface) or -30 dBFS (digital interface) when playing	P					P	
	the fixed "programme simulation noise" described in EN	DED.					PER	
	50332-1.				200		Ò	,
0.6.4	Requirements for maximum sound exposure	C AC	TO.	7210	EV CO	TEN	Territoria.	N/A
0.6.4.1	Measurement methods	P					P	N/A
	All volume controls shall be turned to maximum during	D PED					P	
	tests. Measurements shall be made in accordance with	0 0					20	
	EN 50332-1 or EN 50332-2 as applicable.	(A)					1	



lause	Requirement + Test	Res	ult - R	Remar	k	2	P	ADV.	Verdic
PER PER		PER	PER	PER	P	2	PER	PER	P
0.6.4.2	Protection of persons of the second of the s	PED						P	N/A
	Except as given below, protection requirements for	<b>PED</b>						@ C	
	parts accessible to ordinary persons, instructed	20						, de	
	persons and skilled persons are given in 4.3.	P						P	
	NOTE 1 Volume control is not considered a safeguard.	PED						P	
	Between RS2 and an <b>ordinary person</b> , the <b>basic</b>	a CD						Ç	
	safeguard may be replaced by an instructional	720						72	
	safeguard in accordance with Clause F.5, except the	at						P	
	the instructional safeguard shall be placed on the	OED!							
	equipment, or on the packaging, or in the instruction manual. Alternatively, the instructional safeguard research							,	
	be given through the equipment display during use.	nay.						@ C	
	A A A A A A A	O							
	The elements of the instructional assessment about	P						P	
	The elements of the instructional safeguard shall the structional safeguard shall the struction shall	DE TO						P	
		_00							
	element 12: the symbol IEC 60417-6044	P						P	
	- element fa. the symbol 2 , ILC 00417-0044	PED						P	
	(2011-01)	PED						Q C	
	– element 2: "High sound pressure" or equivalent	- 20							
	wording of of of of of of	P.						P	
	- element 3: "Hearing damage risk" or equivalent	PED						P	
	wording	a CO						C	
	- element 4: "Do not listen at high volume levels for	long						Terr	
	periods." or equivalent wording	PELL						P	
		a ED						<b>1</b>	
	An equipment safeguard shall prevent exposure of							Ċ	
	<b>ordinary person</b> to an RS2 source without intention physical action from the <b>ordinary person</b> and shall	al						P	
	automatically return to an output level not exceeding	, O						,	
	what is specified for an RS1 source when the power	150						P	
	switched off.	PER						P	
	The equipment shall provide a means to actively info	orm						C	
	the user of the increased sound level when the	Asia.						P	
	equipment is operated with an output exceeding RS	1.0						P	
	Any means used shall be acknowledged by the user								
	before activating a mode of operation which allows for	or						14	
	an output exceeding RS1. The acknowledgement do							Par	
	not need to be repeated more than once every 20 h	of						P	
	cumulative listening time.	OED.							
	NOTE 2 Examples of means include visual or audible signals. Ac	tion						Ta	
	from the user is always needed.	PELL						P	
	NOTE 3 The 20 h listening time is the accumulative listening time	400							
	independent of how often and how long the personal music playe	r has						1	
	been switched off.	P						P	
	A skilled person shall not be unintentionally expose	ed to						C	

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Effective Date: 2024-06-21



RED Lab	ooratories Inc.	OED DEF	Page 58 of 7	74	Report No.RED24121711	6003ED-AM-A
			EN	I 62368-1		10 10 10
Clause	Requirement + Te	sť		P. P.	Result - Remark	Verdict

P 700 700		PER	PER	PER DEP	PER	PER	Par A
10.6.5	Requirements for dose-based systems	PEL	PER	PER DEL	PER	P	N/A
10.6.5.1	General requirements 🖗 🎺 🦑 🦑 🦸					PI	N/A
DELL DELL	TO AND					Q C	
	Personal music players shall give the warnings as						
	provided below when tested according to EN 50332-3, using the limits from this clause.					Par C	
Partie Partie	using the little north this clause.					P	
PER PER	The manufacturer may offer optional settings to allow					P	
S DELL DELL	the users to modify when and how they wish to receive					W.C.	
, , ,	the notifications and warnings to promote a better user					,	
PER PER	experience without defeating the safeguards. This allows the users to be informed in a method that best					PI	
C OFFIC OFFIC	meets their physical capabilities and device usage					Par C	
	needs. If such optional settings are offered, an					,	
0 0 0	administrator (for example, parental restrictions,					122	
PER PER	business/educational administrators, etc.) shall be able					P	
PER PER	to lock any optional settings into a specific configuration.					PI	
DELL DELL	The personal music player shall be supplied with easy					P	
DEED PRED	to understand explanation to the user of the dose					Paris C	
g eg eg	management system, the risks involved, and how to use						
	the system safely. The user shall be made aware that					Par C	
Part Part	other sources may significantly contribute to their sound exposure, for example work, transportation, concerts,					P	
Dell Sell	clubs, cinema, car races, etc.					P	
10.6.5.2	Dose-based warning and requirements	PED	PED	PED DED	PED	P	N/A
S OFFI	P OF OF OF OF OF OF OF OF OF					OF C	
, ,	When a dose of 100 % CSD is reached, and at least at					,	
PER PER	every 100 % further increase of <i>CSD</i> , the device shall					P	
DELL DELL	warn the user and require an acknowledgement. In case the user does not acknowledge, the output level shall					W.C.	
	automatically decrease to compliance with class RS1.						
						<b>72</b>	
PER PER	The warning shall at least clearly indicate that listening					P	
PER PER	above 100 % CSD leads to the risk of hearing damage					P	
S PED PED	or loss.	RED.	PED!	PED DED	PED	P. C.	· CEP

TRF: IEC/EN62368-1-2018-V2



		QV	Q//	2	5)	2	4	- QV
lause	Requirement + Test	Result -	Remai	rk		Ò		/erdi
PV PV		PV PV	P.V.	P.	D.	P	P	P
0.6.5.3	Exposure-based requirements	PER PER					P	N/A
	With only dose-based requirements, cause and effect	120					TO SERVICE	
	could be far separated in time, defying the purpose of	18.2					, o	
	educating users about safe listening practice. In additi	ion 🧨					P	
	to dose-based requirements, a PMP shall therefore	DED DED					Q P	
	also put a limit to the short-term sound level a user ca	n )					Ö	
	listen at. of of of of of of of	PER PER					P	
	The exposure-based limiter (EL) shall automatically	OEL OEL					@ C	
	reduce the sound level not to exceed 100 dB(A) or 15	0					Ó	
	mV integrated over the past 180 s, based on	PER PER					P	
	methodology defined in EN 50332-3.	, ,					,	
	The EL settling time (time from starting level reduction	10 <sup>61</sup>					P	
	to reaching target output) shall be 10 s or faster.	OED OED					OF C	
	Test of EL functionality is conducted according to EN	Te Te					10	
	50332-3, using the limits from this clause. For	PER PER					P	
	equipment provided as a package (player with its	er er						
Str. Str.	listening device), the level integrated over 180 s shall	be	The state of the s	720	200	720	72º	
	100 dB or lower. For equipment provided with a	PER PER					P	
	standardized connector, the unweighted level integrate	ed 🧳					Par C	
	over 180 s shall be no more than 150 mV for an						·	
	analogue interface and no more than -10 dBFS for a	P P					P	
	digital interface.	DED DED					Q P	
	NOTE In case the source is known not to be music (or test signal),	the					, o	
	EL may be disabled.	PER PER					P	
0.6.6	Requirements for listening devices (Intelligent Wa	tch, ear	phone	s, et	c.)		P	N//
0.6.6.1	Corded listening devices with analogue input	OED OED	agric.	OFF.	DED	OED.	Q C	N/A
	With 94 dB LAeq acoustic pressure output of the						Ö	
	listening device, and with the volume and sound	PER PER					P	
	settings in the listening device (for example, built-in	, ,					,	
	volume level control, additional sound features like	PELL PELL					P	
	equalization, etc.) set to the combination of positions	OED OED					OF C	
	that maximize the measured acoustic output, the input	t Ter					12	
	voltage of the listening device when playing the fixed	PEL PEL					P	
	"programme simulation noise" as described in EN	ep ep						
	50332-1 shall be ≥ 75 mV.	14 12					1/21	
	NOTE The values of 94 dB and 75 mV correspond with 85 dB and 2	27					P	
	mV or 100 dB and 150 mV.	PED PED					P	
0.6.6.2		- C	00	-00	cQ.	. 00		N//
4.0.0.4	Corded listening devices with digital input	P					P	IN//
	With any playing device playing the fixed "programme						Q C	
	simulation noise" described in EN 50332-1, and with the						, O	
	volume and sound settings in the listening device (for	1					P	
	example, built-in volume level control, additional sound	_07/					OF C	
	features like equalization, etc.) set to the combination						14	
	positions that maximize the measured acoustic output	-CV						
	the $LAeq$ , $\tau$ acoustic output of the listening device shall	10.					150	

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Clause	Requirement +	Test		Re	sult - Re	mark	(72)	200	Plan		Verdi
0.6.6.3	Cordless listen	ing dovices		Series of the series	DEC.	SEC.	PIE.	DED.	DED.	Par Par	N/A
Ø.0.0.3	In cordless mod	. •			0					40	INT
	- with any playir			nlaving the	Q				P	P	
	fixed programme	N/		77 - ZOV7 - GV7 - GV	PER 4					PE	
	50332-1; and				OED.					Q(P)	
	<ul> <li>respecting the</li> </ul>										
	where an air inte			t specifies the	1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1					Par C	
	equivalent acou				PER 4					P	
	<ul> <li>with volume and device (for example)</li> </ul>				PER 4					PE	
	additional sound	1			,					,	
	the combination	of positions th	at maximiz	e the 🌯 🧖	PER A					P	
	measured acous				PED:					PEC	
	programme sime										
	of the listening of signal of -10 dBl		^ 100 dB w	ııın an Input 🥙	721 4					TRU.	
10.004	The Pile City	e div av di			P. A	a China	PER	a Chin	P	P	NI/A
10.6.6.4	Measurement r		in coordon	Society EN	PED: 4					PED	N/A
	Measurements 5		in accordan	ice with EN	PED:					PER	
	00002 Z do appi	ioabic.									
2	Modification to	the whole de	cumont								NI/A
3	Modification to	<u> </u>	<u> </u>	in an Alantika auf	a a a Gradin		4142	Fall o		40	N/A
RELIA POERE	Delete all the "c	ountry" notes i	<u> </u>			ıg to			wing	@F	N/A
	<u> </u>	<u> </u>	<u> </u>	nce document Note 4 and 5	accordin	ng to	the t		wing		
	Delete all the "c	ountry" notes i	<u> </u>			ng to		2			
	Delete all the "c	ountry" notes i	n the refere	Note 4 and 5	3.3.8.1	8	Note	: 2 : 1 ai	nd 2		
	<b>Delete</b> all the "c 0.2.1 3.3.8.3	Ountry" notes i Note 1 and 2 Note 1	n the refere 1 4.1.15	Note 4 and 5	3.3.8.1 4.7.3	8	Note	: 2 : 1 ai	nd 2	\$100 and	
	Delete all the "c 0.2.1 3.3.8.3 5.2.2.2	Note 1 and 2  Note 1  Note 1	1 4.1.15 5.4.2.3.2.2 Table 12	Note 4 and 5  Note  Note c	3.3.8.1 4.7.3 5.4.2.3.	8	Note Note	: 2 : 1 ar : 1 ar	nd 2		
	Delete all the "c 0.2.1 3.3.8.3 5.2.2.2 5.4.2.3.2.4	Ountry" notes i Note 1 and 2 Note 1	1 4.1.15 5.4.2.3.2.2	Note 4 and 5	3.3.8.1 4.7.3	8	Note	: 2 : 1 ar : 1 ar	nd 2		
	Delete all the "c 0.2.1 3.3.8.3 5.2.2.2	Note 1 and 2  Note 1  Note 1	1 4.1.15 5.4.2.3.2.2 Table 12	Note 4 and 5  Note  Note c	3.3.8.1 4.7.3 5.4.2.3.	8	Note Note	: 2 : 1 ar : 1 ar	nd 2		
	Delete all the "c 0.2.1 3.3.8.3 5.2.2.2 5.4.2.3.2.4	Note 1 and 2  Note 1  Note 1	1 4.1.15 5.4.2.3.2.2 Table 12	Note 4 and 5  Note  Note c	3.3.8.1 4.7.3 5.4.2.3.	2.4	Note Note	e 2 e 1 ar e 1 ar	nd 2		
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	Delete all the "c 0.2.1 3.3.8.3 5.2.2.2 5.4.2.3.2.4 Table 13	Note 1 and 2  Note 1  Note 1  Note 1	1 4.1.15 5.4.2.3.2.2 Table 12 5.4.2.5	Note 4 and 5  Note  Note c	3.3.8.1 4.7.3 5.4.2.3. 5.4.5.1	2.4	Note Note Note	: 2 : 1 ar : 1 ar :	nd 2		
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	Delete all the "c 0.2.1 3.3.8.3 5.2.2.2 5.4.2.3.2.4 Table 13 5.4.10.2.1	Note 1 and 2 Note 1 Note 1 Note Note Note	1 4.1.15 5.4.2.3.2.2 Table 12 5.4.2.5	Note 4 and 5  Note c  Note 2  Note	3.3.8.1 4.7.3 5.4.2.3. 5.4.5.1	2.4	Note Note Note Note Note Note Note Note	: 2 : 1 ai : 1 ai : 1 ai	nd 2 nd 3		
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	Delete all the "c 0.2.1 3.3.8.3 5.2.2.2 5.4.2.3.2.4 Table 13 5.4.10.2.1 5.5.2.1	Note 1 Note 2 Note Note Note	1 4.1.15 5.4.2.3.2.2 Table 12 5.4.2.5 5.4.10.2.2 5.5.6	Note 4 and 5  Note  Note c  Note 2  Note  Note  Note  Note  Note	3.3.8.1 4.7.3 5.4.2.3. 5.4.5.1 5.4.10.2 5.6.4.2.	2.4	Note Note Note Note Note Note Note Note	e 2 e 1 ar e 1 ar e 2 ar 4 e 1 ar e 2	nd 2 nd 3		
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RED Lab	oratories Inc.	OED O	Page	61 of 74	4 (1)	Report No.RED241217116003EI	D-AM-A
10 10				EN	62368-1		
Clause	Requirement	+ Test			PW PW	Result - Remark	Verdict

Old do	Tresquirement Test	, GIL I	-	-0	-00	-0		
P P		P	P	P	2)	P	P	P
4	Modification to Clause 1							N/A
1 per per	Add the following note:						PART C	N/A
							-0	
	NOTE Z1 The use of certain substances in electrical and electronic						P	
	equipment is restricted within the EU: see Directive 2011/65/EU.						PIP	
5	Modification to 4.Z1							N/A
4.Z1 📣	Add the following new subclause after 4.9:	-60	-00	-0	- CO	-0	-0	N/A
A P	to de la						P	72
	To protect against excessive current, short-circuits and						P	
, ,	earth faults in circuits connected to an a.c. <b>mains</b> ,	1	,	7		١	7	,
	protective devices shall be included either as integral						PIE	
	parts of the equipment or as parts of the building						-40	
	installation, subject to the following, a), b) and c):						P	
	a) except as detailed in b) and c), protective devices						P.C.	
							, id.	
	necessary to comply with the requirements of B.3.1 and						P	
	B.4 shall be included as parts of the equipment;						O.	
	b) for components in series with the mains input to the						74	
	equipment such as the supply cord, appliance coupler,						P	
	r.f.i. filter and switch, short-circuit and earth fault						a P	
	protection may be provided by protective devices in the							
	building installation; 🥙 💅 🎺 🎺 🦸 🦸						P	
	c) it is permitted for pluggable equipment type B or						Q.	
	permanently connected equipment, to rely on						Per	
	dedicated overcurrent and short-circuit protection in the						PIP	
	building installation, provided that the means of						Ö.	
	protection, e.g. fuses or circuit breakers, is fully						P	
	specified in the installation instructions.							
							,	
							O.C.	
72" 72"	If reliance is placed on protection in the building	720	72"	74"	200	72"	74	72"
	installation, the installation instructions shall so state,						PIP	
	except that for pluggable equipment type A the						Q.	
	building installation shall be regarded as providing						P	
	protection in accordance with the rating of the wall						O P	
, , , , , , , , , , , , , , , , , , ,	socket outlet.		\	V-		\	\	V-
6	Modification to 5.4.2.3.2.4							N/A
5.4.2.3.2.4	Add the following to the end of this subclause:	P	P	P	2	P	P	N/A
	I THE						PIC	
	The requirement for interconnection with external						, ,	
	circuit is in addition given in EN 50491-3:2009.					P	P	
7	Modification to 10.2.1							N/A
10.2.1	Add the following to c) and d) in table 39:	PER.	QEP.	PER	DE.P.	QEP.	Q(P)	N/A
. V.Z. I V	A A A A A A A A A						Ċ	1 W/ /\
							P	
0 0	For additional requirements, see 10.5.1.			_0	C.C.	, O	, Q	-00

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RED Lab	oratories Inc.	OED.	OEC OE	Page 62	of 74	OED.	Report No.RED241217116003E	D-AM-A
10 10					EN 623	38-1		
Clause	Requirement -	+ Test	<b>2</b>			P	Result - Remark	Verdict

P	P		P	P	P	2	P	P	P	P
8		Modification to 10.5.1							N/A	2
10.5.1	PER	Add the following after the first paragraph:						PER	N/A	12
OED!		I AN						P. C.		12
C SED		For RS 1 compliance is checked by measurement under the following conditions:								40
		the following conditions.						N. C.		
		In addition to the normal operating conditions, all						RIV.		422
P		controls adjustable from the outside by hand, by any						P		12
PER		object such as a tool or a coin, and those internal adjustments or pre-sets which are not locked in a						P		1
S ED		reliable manner, are adjusted so as to give maximum						, Ci		
C CC		radiation whilst maintaining an intelligible picture for 1 h,						Tar.		42
P.		at the end of which the measurement is made.						P		1
PELL		NOTE Z1 Soldered joints and paint lockings are examples of						P		12
PED		adequate locking.						PIL		12
PED		IF APP APP APP APP APP APP APP APP APP AP						PIC		12
PED		The dose-rate is determined by means of a radiation						PILL		1
C PED		monitor with an effective area of 10 cm², at any point 10 cm from the outer surface of the apparatus.						PER		12
DED.								OF IC		40
C CC		Moreover, the measurement shall be made under fault						C.C.		
		conditions causing an increase of the high voltage,						Par Ci.		422
P		provided an intelligible picture is maintained for 1 h, at the end of which the measurement is made.						P		12
PELL								P		12
PED		For RS1, the dose-rate shall not exceed 1 µSv/h taking						PER		12
0 -00		account of the background level.						, Ci		
		NOTE 72 These values among in Directive 06/20/Eurotem of 12 May						Par Ci		42
P		NOTE Z2 These values appear in Directive 96/29/Euratom of 13 May 1996.						P		1
9		Modification to G.7.1		A. J.		- J.			N/A	2
G.7.1	PEL	Add the following note:	PEL	PELL	PEL	DEL.	PELL	P	N/A	1
PED		IF APP APP APP APP APP APP APP APP APP AP						PIC		1
PED		NOTE Z1 The harmonized code designations corresponding to the						PIC		1
Ó Ó	20	IEC cord types are given in Annex ZD.	Ö	Ö	Q.	Ö	Ó	Ċ	20	



RED Lab	oratories Inc.	OFIL!	ED EP	age 63 of	74	FER	Report No.RED241217116	003ED-AM-A
10 10				E)	N 62368-1			
Clause	Requirement	+ Test	2	Property of	Property Property Control	2	Result - Remark	Verdic

QE QE		P	P	P	P	2	P	P	P	1
10	Modification to Bibliography								N/A	(A)
P PED PED	Add the following notes for the standards indicated:							PER	N/A	1
S SEL SEL	IEC 60130-9 NOTE Harmonized as EN 6013	0-9.								46
	IEC 60269-2 NOTE Harmonized as HD 6026							Ċ.		
Per Per	IEC 60309-1 NOTE Harmonized as EN 60309		0.44.15	S 000	D4			P		P
D DED DED	IEC 60364 NOTE some parts harmonized i IEC 60601-2-4 NOTE Harmonized as EN 6060		184/HL	וצטט כ	o4 ser	ies.		PIP.		40
	IEC 60664-5 NOTE Harmonized as EN 6066-							,		
Q Q	IEC 61032: 1997 NOTE Harmonized as EN 6103:		(not i	modifi	ed).			P		1
P PER PER	IEC 61508-1 NOTE Harmonized as EN 6150							PER		1
, ,	IEC 61558-2-1 NOTE Harmonized as EN 6155							,		١
AEL DEL	IEC 61558-2-4 NOTE Harmonized as EN 6155							PIC		1
0 0 0	IEC 61558-2-6 NOTE Harmonized as EN 6155 IEC 61643-1 NOTE Harmonized as EN 6164							40		
	IEC 61643-21 NOTE Harmonized as EN 61643							P		12
P RELL RELL	IEC 61643-311 NOTE Harmonized as EN 6164							PER		1
0 0 0	IEC 61643-321 NOTE Harmonized as EN 6164							40		
@ @V	IEC 61643-331 NOTE Harmonized as EN 6164							P		1
11	ADDITION OF ANNEXES	A. A.	AL	A 1.	11.1			Ŏ.	N/A	2
ZB	ANNEX ZB, SPECIAL NATIONAL CONDITIONS (E	=N)	P	P	P	2)	P	P	N/A	42
4.1.15	Denmark, Finland, Norway and Sweden	PER	PER	PRI	PER	a F.F.	PER	P	N/A	12
S OFF	To the end of the subclause the following is added:	OED.							OED.	46
0 20 20	Class I pluggable equipment type A intended for	, O						Ċ.		
P P	connection to other equipment or a	P						P		12
P REP REP	network shall, if safety relies on connection to	PED						PER		1
9 -69 -69	reliable earthing or if surge suppressors	-60						O.		
	are connected between the network terminals and	P						P.		42
POPEL POPEL	accessible parts, have a marking stating that the	PER						PIE		P
, ,	equipment shall be connected to an earthed mains	1						· ·		
POEL POEL	socket-outlet.	PER						PER		1
g eg eg	The marking text in the applicable countries shall	e D						OF C		
day day	be as follows:	721						727		72
PELL DEL	In <b>Denmark</b> : "Apparatets stikprop skal tilsluttes en	PELL						P		P
g eg eg	stikkontakt med jord som giver forbindelse til	e D						O D		
The Ann	stikproppens jord."	Jan.						720		72
PELL DEL	In <b>Finland</b> : "Laite on liitettävä suojakoskettimilla	PELL						P		P
P PER PER	varustettuun pistorasiaan"	PED						PIP		1
9 60 60	In <b>Norway</b> : "Apparatet må tilkoples jordet	60						C.C.		
Q Q	stikkontakt"	P.						P		12
PER PER	In <b>Sweden</b> : "Apparaten skall anslutas till jordat	PED						P		1
9 60 60	uttag"	60						Ç.		
(1) (1)		12/	12	12/1	12	57.00	12/1	12	12	42



RE	D Lak	Page 64 of 74 Report No.RED241217116003ED-AM-A EN 62368-1	1
Clause	<b>P</b>	Requirement + Test Result - Remark Verdict	1
R	PE		1
4.7.3	PED	United Kingdom of the first of	4
PED		To the end of the subclause the following is added:	4
PED		The torque test is performed using a socket-outlet complying with BS 1363, and the plug part shall be	4
ard.		assessed to the relevant clauses of BS 1363. Also	4
	, i	see Annex G.4.2 of this annex	



Clause	EN 62368-1 Requirement + Test	Resu	ilt - R	lemar	k			1	/erdict
Property Comments		7	PER	2011IQI	PER	DEP	P	P.F.	, Graigi
5.2.2.2	Denmark Of the All All All All All All All All All Al	PED	PED	PED	PER	DEL	PED	P	N/A
	After the 2nd paragraph add the following:	ED						O C	
	A warning (marking safeguard) for high touch current	is						72	
	required if the touch current exceeds the limits of 3,5	P						P	
PER PER	mA a.c. or 10 mA d.c.	PED	RED.	PED	PED	DED.	PED	P	PED
5.4.11.1	Finland and Sweden	OED.						Ö	N/A
ınd	To the end of the subclause the following is added:	, O						Ö	
Annex G	For separation of the telecommunication network from	n						P	
	earth the following is applicable:	PED						P	
	If this insulation is solid, including insulation forming p	part						,	
	of a component, it shall at least consist of either	PE						P	
	two layers of thin sheet material, each of which shapes the electric etrapeth test helew or	all						Par Ci	
	<ul> <li>pass the electric strength test below, or</li> <li>one layer having a distance through insulation of a</li> </ul>	+-60						, C	
	least 0,4 mm, which shall pass the electric strengt							P	
	test below.	PEL						P	
	If this insulation forms part of a semiconductor	<b>PED</b>						P.C.	
	component (e.g. an optocoupler), there is no	OED.						a C	
	distance through insulation requirement for the	20						Ö	
	insulation consisting of an insulating compound	P.					P	P	
	completely filling the casing, so that clearances and	PEL						P	
	creepage distances do not exist, if the component	OED.						Q C	
	passes the electric strength test in accordance with the compliance clause below and in addition	IE O						Ò	
P P	• passes the tests and inspection criteria of 5.4.8 with	<b>P</b>	P	P	P	2	P	1	P
	an electric strength test of 1,5 kV multiplied by 1,6	PER						P	
	(the electric strength test of 5.4.9 shall be performe	d 🔑							
	using 1,5 kV), and	,						,	
	is subject to routine testing for electric strength	PED						P	
	during manufacturing, using a test voltage of 1,5 k	_6//						Ó	
	It is permitted to bridge this insulation with a capacito	r <sup>ra</sup>						720	
	complying with EN 60384-14:2005, subclass Y2.	PE						P	
		PED						P	
	A capacitor classified Y3 according to EN 60384-14:	-cO						Ö	
	2005, may bridge this insulation under the following conditions:	DIV.						(2)	
	the insulation requirements are satisfied by having	a						P	
	capacitor classified Y3 as defined by EN 60384-14							P	
	which in addition to the Y3 testing, is tested with a							P.C.	
	impulse test of 2,5 kV defined in 5.4.11;	-cO						, Q	
	the additional testing shall be performed on all the	P						P	
	test specimens as described in EN 60384-14;	PED						PIL	
	the impulse test of 2,5 kV is to be performed before the	ne							
	endurance test in EN 60384-14, in the sequence of	Ö						Ö	
Part Part	tests as described in EN 60384-14.	P	PER	P	P	2	P	P	

Effective Date: 2024-06-21

TRF: IEC/EN62368-1-2018-V2



	poratories Inc. Page 66 of 74 Rep EN 62368-1		P	P	2	(A)	P	M-A
lause	Requirement + Test	Result - F	Remar	k	2	P	To be	/erdict
REF REF		are profes	PER	PER	2	PER	P	PER
5.2.1	Norway 🛷 🛷 🧬 🛷 🛷 🛷 🛷	DEC PER					P	N/A
	After the 3rd paragraph the following is added:	EC SEC						
	Due to the IT power system used, capacitors are						Ö	
	required to be rated for the applicable line-to-line	DE PRESENTA					P	
PED PED	voltage (230 V).	DED DED	PED	PED	DED.	PED.	P	PED
.5.6	Finland, Norway and Sweden	EČ EČ					Ó	N/A
	To the end of the subclause the following is added:	er ger					74	
	Resistors used as basic safeguard or bridging basic	DEL PER					P	
	insulation in class I pluggable equipment type A	DED PED					P	
<u>; ; ;</u>	shall comply with G.10.1 and the test of G.10.2.	,	,	· ·		i ,	1	,
6.1	Denmark of the second of the s	DEC PER					P	N/A
	Add to the end of the subclause	ED SED						
	Due to many existing installations where the socket-						Ö	
	outlets can be protected with fuses with higher rating	DE PROPERTY					P	
	than the rating of the socket-outlets the protection for	PED PED					P	
	pluggable equipment type A shall be an integral part of	EÖ EÖ					Ö	
	the equipment.	Die Ch					Par	
	Justification: In Denmark an existing 13 A socket outlet can be protected by a 20 A fuse.						P	
PER PER		PEC PEC	PER	PER	E.C.	PER	P	PER
6.4.2.1	Ireland and United Kingdom	ED OFD					O C	N/A
	After the indent for <b>pluggable equipment type A</b> , the following is added:	, Ó.					Ö	
	- the <b>protective current rating</b> is taken to be 13 A, thi	is:					P	
	being the largest rating of fuse used in the <b>mains</b> plug.						PIL	
6.4.2.1	France of all all all all all all all all all al	DEL PER	PER	PER	DEFE	PED	P	N/A
	After the indent for <b>pluggable equipment type A</b> , the following is added:	DED PED					P	
	in certain cases, the <b>protective current rating</b> of the							
	circuit supplied from the mains is taken as 20 A instead	-					P	
	of 16 A. W W W W W W W	OFF.					P	
6.5.1	To the second paragraph the following is added:	EC DEC	<b>DED</b>	<b>PED</b>	DED.	QED.	Q P	N/A
Ø Ø	The range of conductor sizes of flexible cords to be	0 0					Ò	
	accepted by terminals for equipment with a rated	D. Toler					P	
	current over 10 A and up to and including 13 A is:	DEC PER					P	
	1,25 mm <sup>2</sup> to 1,5 mm <sup>2</sup> in cross-sectional area.	EC PEC					P	
6.8	Norway A A A A A A A A	EÜ EÜ	OED.	OED.	DED.	(ED)	O C	N/A
di di	To the end of the subclause the following is added:	i qu					74	Territoria
	Equipment connected with an earthed mains plug is	PER PER					P	
	classified as class I equipment. See the Norway	ED OFF					P	
	marking requirement in 4.1.15. The symbol IEC 60417-	0 0					. 0	
2V	6092, as specified in F.3.6.2, is accepted.	District Toler	P	P	20	P	P	P
76	Denmark of of of of of of of	DEL PER	PELL	PEL	DEL	PEL	P	N/A
7.6								
7.0 P	To the end of the subclause the following is added:	EC SEC					O C	

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Clause	Requirement + Test	Res	ult - R	Remar	k			The same of	Verdic
PARTY PARTY		PE	PER	PER	PE	DE	PER	PE	PER
	equipment if the protective conductor current	PEL						P	
ne ne	exceeds the limits of 3,5 mA a.c. or 10 mA d.c.	TO STATE OF THE PARTY OF THE PA	REC.	RED.	ALCO .	ED)	RECO.	<del>2</del>	TO CO
7.6.2	Denmark	.00						, 40	N/A
	To the end of the subclause the following is added:	P						P	
	The warning (marking safeguard) for high touch curr	ent						P	
	is required if the touch current or the protective curre	ent						G Q	
(An Ann	exceed the limits of 3,5 mA.	72"	720	72"	72"	200	72"	72	72"
7.7.1	Norway and Sweden 🥙 🎺 🦑 🦑 🥙	PEL						P	N/A
	To the end of the subclause the following is added:	OFD.							
	The screen of the television distribution system is	,						,	
	normally not earthed at the entrance of the building a	and						Q (C)	
	there is normally no equipotential bonding system w	ithin						,	
	the building. Therefore the protective earthing of the							P	
	building installation needs to be isolated from the sci	reen						PER	
	of a cable distribution system.	-ED						9	
Par Par	It is however accepted to provide the insulation exter		Par.	Par.	Plan	2)	P	P.	
	to the equipment by an adapter or an interconnection	145						P	
	cable with galvanic isolator, which may be provided	by a						P	
	retailer, for example.								
	The user manual shall then have the following or sin	nılar					Plan	Par -	
	information in Norwegian and Swedish language respectively, depending on in what country the	PELL						P	
	equipment is intended to be used in:	ED						O C	
	"Apparatus connected to the protective earthing of the	10.0						Ö	
	building installation through the mains connection or	401/						P	
	through other apparatus with a connection to protect							Q C	
	earthing – and to a television distribution system using								
	coaxial cable, may in some circumstances create a f	700						P	
	hazard. Connection to a television distribution system							Q.	
Die Die	therefore has to be provided through a device provide	ling	P	121	P21-11	21/2"	121	72	
	electrical isolation below a certain frequency range	PER						PER	
	(galvanic isolator, see EN 60728-11)"	ED							
	NOTE In Norway, due to regulation for CATV-installations, and in	-						74	
	Sweden, a galvanic isolator shall provide electrical insulation belo	1						P	
	MHz. The insulation shall withstand a dielectric strength of 1,5 kV	OED.						@ P.C.	
	r.m.s., 50 Hz or 60 Hz, for 1 min.	L OFF						C	
	Translation to Norwegian (the Swedish text will also	be						\alpha o	
	accepted in Norway): "Apparater som er koplet til beskyttelsesjord via nettplugg og/eller via annet	PE						P	
	jordtilkoplet utstyr – og er tilkoplet et koaksialbasert	QED.						Q C	
	kabel-TV nett, kan forårsake brannfare.	, O						Ċ	
	For å unngå dette skal det ved tilkopling av apparate	er til						P	
	kabel-TV nett installeres en galvanisk isolator mellor	16.7						P	
	apparatet og kabel-TV nettet."	-00							
	Translation to Swedish: "Apparater som är kopplad t	ill						P	
	skyddsjord via jordat vägguttag och/eller via annan	PED						P	
	utrustning och samtidigt är kopplad till kabel-TV nät							,	

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TRF: IEC/EN62368-1-2018-V2

Effective Date: 2024-06-21



RED Lat	poratories Inc. Page 68 of 74 Re EN 62368-1	port No.	RED2	4121	7116	5003E	ED-A	M-A
Clause	Requirement + Test	Result - F	Remar	k	2	P	V	/erdict
PER PER	of all all all all all all all all all al	DEP PRES	PER	PER	36.00	PER	PER	PER
PER PER	i vissa fall medfőra risk főr brand. Főr att undvika detta	OFF. POFF.	PED	PER	DE.C.	PED	P	PED
	skall vid anslutning av apparaten till kabel-TV nät galvanisk isolator finnas mellan apparaten och kabel-T	V PER					PIL	
	nätet." 🛷 🎺 🧬 🎺 🎺 🧳 🧳	DED PED					PIL	
8.5.4.2.3	United Kingdom	DED PER	RED	PED!	DE.C.	PIED!	PIC	N/A
	Add the following after the 2 <sup>nd</sup> dash bullet in 3 <sup>rd</sup> paragraph: An emergency stop system complying with	DELL PRED					PIR	
	the requirements of IEC 60204-1 and ISO 13850 is required where there is a risk of personal injury.	DELL PRED					PIC	
B.3.1 and	Ireland and United Kingdom	DE TOPE	P	P	2	P	R	N/A
B.40	The following is applicable:	agi agi					Q.C.	
	To protect against excessive currents and short-circuits in the primary circuit of <b>direct plug-in equipment</b> , test	.60					PIL	
	according to Annexes B.3.1 and B.4 shall be conducted using an external miniature circuit breaker complying	do par					PIR	
	with EN 60898-1, Type B, rated 32A. If the equipment	DED PED					PIC	
	does not pass these tests, suitable protective devices shall be included as an integral part of the <b>direct plug-</b>						PID	
	in equipment, until the requirements of Annexes B.3.1 and B.4 are met	ED DED					P Ci	



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	EN 62368-1		·	·		0		,	
Clause	Requirement + Test	Res	ult - R	Remar	k	2100	PIN	And I	Verdict
Property Pro		P	PER	P	PE	2	P	P	PE
G.4.2	Denmark of of of of of of	PER						P	N/A
	To the end of the subclause the following is added:	PED						P	
	Supply cords of single phase appliances having a rat							Q (C)	
	current not exceeding 13 A shall be provided with a paracording to DS 60884-2-D1:2011.	olug						40	
	CLASS I EQUIPMENT provided with socket-outlets v	with						P	
	earth contacts or which are intended to be used in	PER						P	
	locations where protection against indirect contact is	100						P	
	required according to the wiring rules shall be provided with a plug in accordance with standard sheet DK 2.	4.00							
	with a plug in accordance with standard sheet DK 2-7 or DK 2-5a.	ıa						,	
	If a single-phase equipment having a RATED	PED						P	
	CURRENT exceeding 13 A or if a polyphase	PED						P	
	equipment is provided with a supply cord with a plug,	, ED							
	this plug shall be in accordance with the standard sheets DK 6-1a in DS 60884-2-D1 or EN 60309-2.	Per						720	
	Mains socket outlets intended for providing power to	P						P	
	Class II apparatus with a rated current of 2,5 A shall	be						P	
	in accordance DS 60884-2-D1:2011 standard sheet	PED						P	
	DKA 1-4a	PER						P	
	Other current rating socket outlets shall be in compliance with Standard Sheet DKA 1-3a	PER						P	
	or DKA 1-1c. 🧳 🧳 🧳 🧳 🧳	PED.						@ C	
	Mains socket-outlets with earth shall be in compliand with DS 60884-2-D1:2011	e						P	
	Standard Sheet DK 1-3a, DK 1-1c, DK1-1d, DK 1-5a	or						P	
	DK 1-7a	OED.							
1 1	Justification: Heavy Current Regulations, Section 6c	1	,	,	,		1	,	,
GA2	United Kingdom	PIP	PER	PIP	PIP	21/0	PIP	P	NI/A
G.4.2	United Kingdom	PED						P	N/A
	To the end of the subclause the following is added:	PED						P	
	THE ARE ARE ARE ARE ARE ARE ARE ARE	RED						P	
	The plug part of direct plug-in equipment shall be assessed to BS 1363: Part 1, 12.1, 12.2, 12.3, 12.9,	OED.							
	12.11, 12.12, 12.13, 12.16, and 12.17, except that the	e						P. C.	
	test of 12.17 is performed at not less than 125 °C.	-00							
	Where the metal earth pin is replaced by an Insulated							P	
	Shutter Opening Device (ISOD), the requirements of clauses 22.2 and 23 also apply.	PEL						P	
<u> </u>	Glauses ZZ.Z and ZS also apply.	, O	O.	O.				Ö	

Effective Date: 2024-06-21

TRF: IEC/EN62368-1-2018-V2



RE	D Lab	Page 70 of 74 R EN 62368-1	Repoi	rt No.F	RED2	4121	7116	6003E	ED-A	M-A
Clause	e	Requirement + Test	Res	ult - R	emar	k	2	R	1	/erdict
P	PE		PE	PER	PER	PER	DE	P	P	PER
G.7.1		United Kingdom 🥙 🥙 🤣 🤣	PEL						P	N/A
		of and and and and and and and and and	PED						PIC	
		To the first paragraph the following is added:	PER						PIC	
		Equipment which is fitted with a flexible cable or cord	PED						PIL	
		and is designed to be connected to a mains socket	<b>PED</b>						ar.C.	
		conforming to BS 1363 by means of that flexible cable	e'							
		or cord shall be fitted with a 'standard plug' in accordance with the Plugs and Sockets etc. (Safety)	P						P	
		Regulations 1994, Statutory Instrument 1994 No. 176	88,						P	
		unless exempted by those	O CP						, Q	
		regulations.	122						PIN	
			PER						P	
		NOTE "Standard plug" is defined in SI 1768:1994 and essentially	PER						PER	
PED	PED	means an approved plug conforming to BS 1363 or an approved conversion plug.	PED	PED	PED	PED	DED	PED	P	RED
G.7.1		Ireland of of of of of of	PED						PIL	N/A
		of all all all all all all all all all	PED						PIC	
		To the first paragraph the following is added:	PED						PIC	
		Apparatus which is fitted with a flexible cable or cord	PER						PER	
		shall be provided with a plug in accordance with Statutory Instrument 525: 1997, "13 A Plugs and	PED						P	
		Conversion Adapters for Domestic Use Regulations:	PED						PIC	
		1997. S.I. 525 provides for the recognition of a standard	ard						PART.	
		of another Member State which is equivalent to the relevant Irish Standard	· ED						, Ci	
G.7.2	1	Ireland and United Kingdom	1	Asia.	1200	721	207	1200	721	N/A
O.T.Z		all	PED						P	PER A
		To the first paragraph the following is added:	PED						PIC	
		OF AND	PED.						P.C.	
		A power supply cord with a conductor of 1,25 mm <sup>2</sup> is allowed for equipment which is rated over 10 A and u	ıp						P	
ED.	ED.	to and including 13 A.	ED.	ED.	ED.	ED.	ED	ED.	, O	e P
Teles	720	a. In	Trit	150	150	Jan.	-	Tel	Tall	721

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RED Laboratories Inc. Page 71 of 74 Report No.RED241217116003ED-AM-A

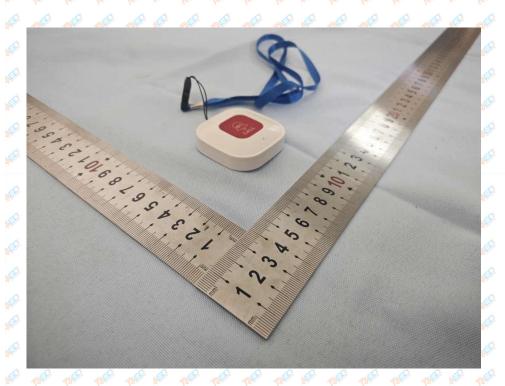
ZC	72.00	ratories Inc. Page 71 of 74  ANNEX ZC, NATIONAL DEVIATIONS (EN)	0 0 0	RED24121711600	127	N/A
0.5.2		ANNEX ZC, NATIONAL DEVIATIONS (EN)  Germany  The following requirement applies:  For the operation of any cathode ray tube intenthe display of visual images operating at an accordage exceeding 40 kV, authorization is requiapplication of type approval (Bauartzulassung) marking.  Justification: German ministerial decree against radiation (Röntgenverordnung), in force since 2002-07-01, implementing the European Direct	nded for celeration red, or and t ionizing			72"
PETE PETE	PER I	96/29/EURATOM.  NOTE Contact address: Physikalisch-Technische Bundesa Bundesallee 100, D-38116 Braunschweig, Tel.: Int+49-531-592-6320, Internet: http://www.ptb.de  IEC and CENELEC CODE DESIGNATIONS F		PRDS (EN)	Project Co.	N/A
PER	PED 2	Type of flexible cord	Code desi	gnations	PEC	N/A
	RED :	DVC insulated and	IEC	CENELEC	PEC.	
	PER S	PVC insulated cords	60007 IEA 44	LINOVIL V	Par Ci	
	PER S	Flat twin tinsel cord  Light polyvinyl chloride sheathed flexible cord	60227 IEC 41 60227 IEC 52	H03VH-Y H03VV-F H03VVH2-F	PEC.	
	PED 3	Ordinary polyvinyl chloride sheathed flexible cord	60227 IEC 53	H05VV-F H05VVH2-F	PEC	
		Rubber insulated cords			P. C.	
	@	Braided cord	60245 IEC 51	H03RT-F	(C)	
	(2) A	Ordinary tough rubber sheathed flexible cord	60245 IEC 53	H05RR-F	P	
	PED 1	Ordinary polychloroprene sheathed flexible cord	60245 IEC 57	H05RN-F	PE C.	
	PED 3	Heavy polychloroprene sheathed flexible cord	60245 IEC 66	H07RN-F	PER	
	PED :	Cords having high flexibility	<u>\$6</u>	**	PEC	
	PED :	Rubber insulated and sheathed cord	60245 IEC 86	H03RR-H	PED	
	PED 1	Rubber insulated, crosslinked PVC sheathed cord	60245 IEC 87	H03 RV4-H	PE C	
	PER S	Crosslinked PVC insulated and sheathed cord  Cords insulated and sheathed with halogen-	60245 IEC 88	H03V4V4-H	Service Co.	
	OED.	free thermoplastic compounds			OF C	
	PED 3	Light halogen-free thermoplastic insulated and sheathed flexible cords		H03Z1Z1-F H03Z1Z1H2-F	PE	
	PED 1	Ordinary halogen-free thermoplastic insulated and sheathed flexible cords		H05Z1Z1-F H05Z1Z1H2-F	Project Co.	
, cò	ZQ.	<u> </u>		en on on on	20	- Q

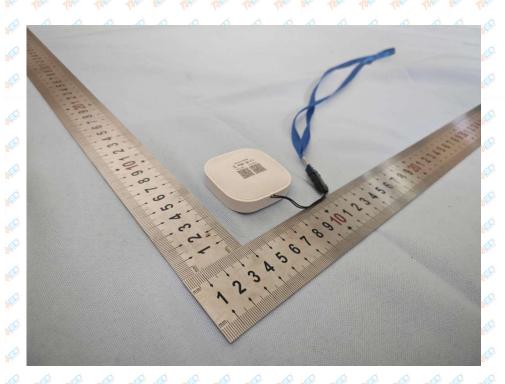
RED Laboratories Inc. E-mail: Cherry@red-test.com Website: https://www.red-test.com/
Add: Room 101, Building A, Zhengtailai Hi-Tech Innovation Park, Yintian Creative Park, Yantian Community, Xixiang

Subdistrict, Bao'an District, Shenzhen, Guangdong, China

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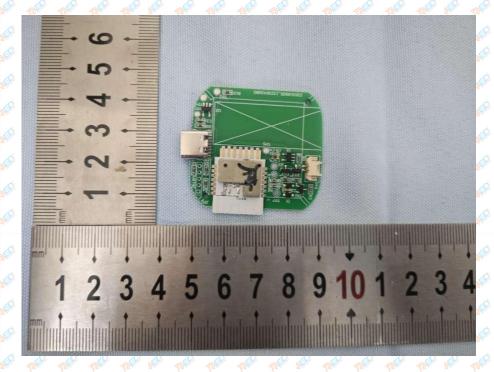
# **ATTACHMENT 2 Photo Documentation**

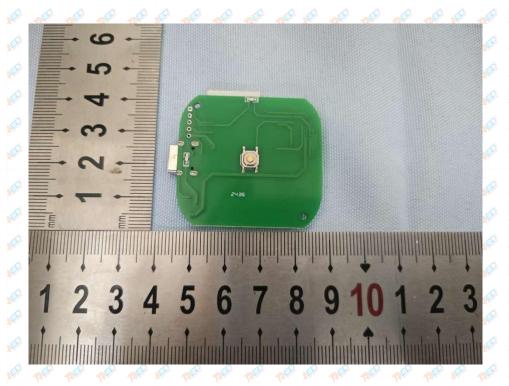




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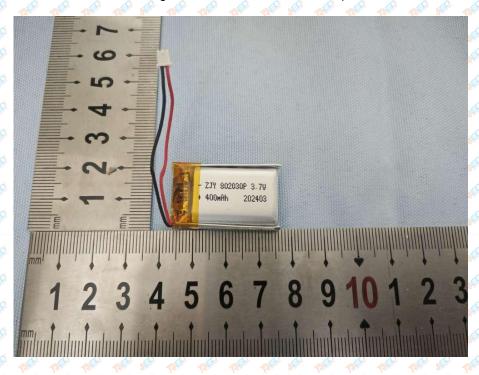
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TRF: IEC/EN62368-1-2018-V2

Effective Date: 2024-06-21



--- End of report ---

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